0048619

DANGEROUS WASTE PORTION OF THE RESOURCE CONSERVATION AND RECOVERY ACT PERMIT FOR THE TREATMENT, STORAGE, AND DISPOSAL OF DANGEROUS WASTE

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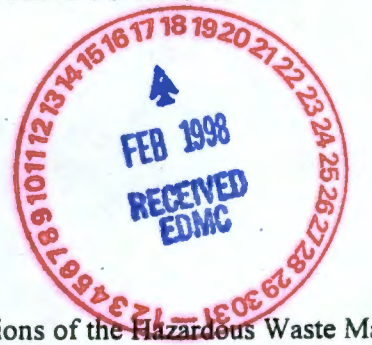

Issued in accordance with the applicable provisions of the Hazardous Waste Management Act, Chapter 70.105 RCW, and the regulations promulgated thereunder in Chapter 173-303 WAC.

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This Permit, as modified on January 28, 1998, is effective as of February 28, 1998, and shall remain in effect through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7).

ISSUED BY: **WASHINGTON STATE DEPARTMENT OF ECOLOGY**

Michael Wilson, Manager
Nuclear Waste Program
Department of Ecology

Date: 1/28/98

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LIST OF ATTACHMENTS

The following listed documents are attached in their entirety. However, only those portions of the Attachments specified in Parts I through VI are enforceable Conditions of this Permit and subject to the Permit modification requirements of Condition I.C.3. Changes to portions of the Attachments which are not subject to the Permit modification process shall be addressed in accordance with Conditions I.E.8., I.E.11., I.E.13., I.E.15. through I.E.20., and I.E.22. The Department has, as deemed necessary, modified specific language in these Attachments. These modifications are described in the Conditions (Parts I through VI), and thereby supersede the language of the Attachment.

Attachment 1	Hanford Federal Facility Agreement and Consent Order, (As Amended)
Attachment 2	Hanford Facility Legal Description
Attachment 3	Permit Applicability Matrix (As Revised on November 26, 1996)
Attachment 4	Hanford Facility Contingency Plan, Revision 2, July 1996
Attachment 5	Purgewater Management Plan, July 1990
Attachment 6	Hanford Well Remediation and Decommissioning Plan, Revision 0
Attachment 7	Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990
Attachment 8	616 Nonradioactive Dangerous Waste Storage Facility Part A, Form 3, Revision 6, October 1, 1996 & Part B Permit Application, Revision 2, September 1991, and Approved Modifications
Attachment 9	616 Nonradioactive Dangerous Waste Shipping Lists
Attachment 10	616 Nonradioactive Dangerous Waste Facility Description of Procedures
Attachment 11	183-H Solar Evaporation Basins Closure/Post-Closure Plan, Revision 3, June 1991
Attachment 12	Decommissioning Work Plan "Concrete Sampling - 183-H Solar Evaporation Basins" (DWP-H-080-00001) 8-26-91, Revision A-3
Attachment 13	Decommissioning Work Plan "Core Drill Sampling - 183-H Solar Evaporation Basins (Phase I)" (DWP-H-080-00005) 2-8-91, Revision A-1
Attachment 14	"183-H Solar Evaporation Basins Vadose Zone Sampling Plan" (WHC-SD-EN-AP-056) 6-25-91, Revision 0
Attachment 15	Decommissioning Work Plan "Berm Removal for 183-H Solar Evaporation Basins" (DWP-H-026-00008) 1-16-91, Revision A-0
Attachment 16	300 Area Solvent Evaporator Closure Plan, Revision 3B, September 1992 **(Clean Closed, July 31, 1995)**
Attachment 17	2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan, Revision 3, January 1992 **(Clean Closed, July 31, 1995)**
Attachment 18	305-B Storage Facility Part A, Form 3, Revision 1, September 25, 1990 and Part B Permit Application, Revision 2, October 1992, and Approved Modifications
Attachment 19	Simulated High Level Waste Slurry TSD Closure Plan, Revision 6A, November 1994 **(Clean Closed, October 23, 1995)**

Attachment 20	218-E-8 Borrow Pit Demolition Site Closure Plan, Revision 1, October 1994 **(Clean Closed, November 28, 1995)**
Attachment 21	200 West Ash Pit Demolition Site Closure Plan, Revision 1, October 1994 **(Clean Closed, November 28, 1995)**
Attachment 22	2101-M Pond Closure Plan, Revision 2A, July 1993 **(Clean Closed, November 28, 1995)**
Attachment 23	216-B-3 Expansion Ponds Closure Plans, Revision 2, October 1994 **(Clean Closed, July 31, 1995)**
Attachment 24	Hanford Patrol Academy Demolition Site Closure Plan, Revision 1, December 1994 **(Clean Closed, November 28, 1995)**
Attachment 25	105-DR Large Sodium Fire Facility Closure Plan, Revision 2, March 1995
Attachment 26	304 Concretion Facility Closure Plan, Revision 2A, November 1993 **(Clean Closed, January 21, 1996)**
Attachment 27	Permit Modification Schedule
Attachment 28	PUREX Storage Tunnels Part A & B, Revision 3, July 1996
Attachment 29	4843 Closure Plan, Revision 1, September 1995 **(Clean Closed, April 14, 1997)**
Attachment 30	3718-F Closure Plan, Revision 2, November 1995
Attachment 31	300 Area Process Trenches Part A & B, Revision 1
Attachment 32	303-K Storage Facility Closure Plan, Revision 2A, June 1995
Attachment 33	General Information Document, Revision 2, July 1996
Attachment 34	200 Area Liquid Waste Complex Permit Application, Revision 0, July 1997
Attachment 35	242-A Evaporator Permit Application, Revision 1, July 1997
Attachment 36	325 Hazardous Waste Treatment Units Permit Application, Revision 1, July 1997
Attachment 37	183-H Solar Evaporation Postclosure Plan, Revision 0, June 1997

INTRODUCTION

Pursuant to Chapter 70.105 Revised Code of Washington (RCW), the Hazardous Waste Management Act (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act, and regulations promulgated thereunder by the Washington State Department of Ecology (hereafter called the Department), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste Regulations, a Dangerous Waste Permit is issued to the U.S. Department of Energy - Richland Operations Office (DOE-RL), (owner/operator), and its contractors (Fluor Daniel Hanford, Inc. (FDH) (co-operator), Pacific Northwest National Laboratory (PNNL) (co-operator), and Bechtel Hanford, Incorporated (BHI) (co-operator)) (hereafter called the Permittees), for the treatment, storage, and disposal of dangerous waste at the Hanford Facility.

This Dangerous Waste Permit, issued in conjunction with the U.S. Environmental Protection Agency's (hereafter call the Agency) Hazardous and Solid Waste Amendments Portion of the Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Hazardous Waste (HSWA Permit), constitutes the Resource Conservation and Recovery Act Permit (RCRA Permit) for the Hanford Facility. Use of the term "Permit" within the Dangerous Waste Permit shall refer to the Dangerous Waste Permit while use of the term "Permit" within the HSWA Permit shall refer to the HSWA Permit. Use of the same term in both the Dangerous Waste Permit and the HSWA Permit, shall have the standard meaning associated with the activities addressed by the Permit in which the term is used. Such meanings shall prevail except where specifically stated otherwise.

The Permittees shall comply with all terms and Conditions set forth in this Permit and those portions of the Attachments that have been specifically incorporated into this Permit. When the Permit and the Attachments (except Attachment 1) conflict, the wording of the Permit will prevail. The Permit is intended to be consistent with the terms and conditions of the Hanford Federal Facility Agreement and Consent Order (FFACO, Attachment 1). The Permittees shall also comply with all applicable state regulations, including Chapter 173-303 WAC.

Applicable state regulations are those which are in effect on the date of issuance, or as specified in subsequent modifications of this Permit. In addition, applicable state regulations include any self-implementing statutory provisions and related regulations which, according to the requirements of the HWMA, as amended, or other law(s), are automatically applicable to the Permittees' dangerous waste management activities, notwithstanding the Conditions of this Permit.

This Permit is based upon the administrative record, as required by WAC 173-303-840. The Permittees' failure in the application or during the Permit issuance process to fully disclose all relevant facts, or the Permittees' misrepresentation of any relevant facts at any time, shall be grounds for the termination or modification of this Permit and/or initiation of an enforcement action, including criminal proceedings. The Permittees shall inform the Department of any deviation from Permit Conditions or changes in the information on which the application is based which would affect either the Permittees' ability to comply or actual compliance with the applicable regulations or Permit Conditions or which alters any Condition of this Permit in any way.

The Department shall enforce all Conditions of this Permit for which the State of Washington is authorized, or which are "state-only" provisions (i.e., Conditions broader in scope or more stringent than the Federal RCRA program). Any challenges of any Permit Condition may be appealed in accordance with WAC 173-303-845. In the event that any Permit Condition is challenged by any Permittee under WAC 173-303-845, the Department may stay any such Permit Condition as it pertains to all Permittees in accordance with the same terms of any stay it grants to the challenging Permittee. If such a stay is granted, it will constitute a "stay by the issuing agency" within the meaning of RCW 43.21B.320(1).

This Permit has been developed to allow a step-wise permitting process of the Hanford Facility to ensure the proper implementation of the FFACO. In order to accomplish this, this Permit consists of six (6) Parts.

Part I, **Standard Conditions**, contains Conditions which are similar to those appearing in all dangerous waste permits.

Part II, **General Facility Conditions**, combines typical dangerous waste Permit Conditions with those Conditions intended to address issues specific to the Hanford Facility. Where appropriate, the General Facility Conditions apply to all final status dangerous waste management activities at the Facility. Where appropriate, the General Facility Conditions also address dangerous waste management activities which may not be directly associated with distinct treatment, storage, and disposal (TSD) units or which may be associated with many TSD units (i.e., spill reporting, training, contingency planning, etc.).

Part III, **Unit-Specific Conditions for Operating Units**, contains those Permit requirements which apply to each individual TSD unit operating under final status. Conditions for each TSD unit are found in a Chapter dedicated to that TSD unit. These unit-specific Chapters contain references to Standard and General Conditions (Parts I and II), as well as additional requirements which are intended to ensure that each TSD unit is operated in an efficient and environmentally protective manner.

Part IV, **Corrective Actions for Past Practice**, references the Agency's HSWA Permit. The HSWA Permit contains those requirements that apply to the identification of Solid Waste Management Units (SWMUs) at the Facility and conduct of investigations and remediations at such SWMUs. The HSWA Permit addresses both SWMUs that are located on the USDOE managed portions of the Facility as well as SWMUs which are not located on USDOE managed property (i.e., leased lands). Any SWMUs located on USDOE managed property are, or will be, included in the FFACO and assigned to operable units. The processes and procedures to be followed, and the schedules of compliance for investigation and subsequent remediation, will be contained in the FFACO. SWMUs not located on USDOE managed property will undergo investigations and remediations, as necessary, in accordance with the requirements and schedules identified in the HSWA Permit.

It is intended that, once the Department receives authorization from the Agency to implement the Corrective Action provisions, these requirements will be incorporated into this Part through a Permit modification. Until the Department receives authorization for the Corrective Action provisions of RCRA, the Agency shall maintain regulatory lead for these requirements.

Part V, **Unit-Specific Conditions for Units Undergoing Closure**, contains those requirements which apply to those specific TSD units included in this Part that are undergoing closure. In accordance with Section 5.3. of the Action Plan of the FFACO, all TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with WAC 173-303-610. Requirements for each TSD unit undergoing closure are found in a Chapter dedicated to that TSD unit. These unit-specific Chapters contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as additional requirements which are intended to ensure that each TSD unit is closed in an efficient and environmentally protective manner.

Part VI, **Unit-Specific Conditions for Units in Post-Closure,** contains requirements which apply to those specific units in this Part that have completed modified or landfill closure requirements and now only need to meet post-closure standards. As set out in Section 5.3 of the Action Plan of the FFACO, certain TSD units shall be permitted for post-closure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and the Hazardous and Solid Waste Amendments. Requirements for each unit undergoing post-closure care are found in a Chapter, within this Part, dedicated to that unit. These unit specific Chapters may contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as, the unit specific conditions, all of which are intended to ensure the unit is managed in an efficient, environmentally protective manner.

DEFINITIONS

All definitions contained in the FFACO, May 1989, as amended, are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n) shall supersede any definition of the same term given in the FFACO. However, the Permit is intended to be consistent with the FFACO.

All definitions contained in WAC 173-303-040 are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n), shall supersede any definition of the same term given in WAC 173-303-040.

Where terms are defined in both Chapter 173-303 WAC and the FFACO, the definitions contained in Chapter 173-303 WAC shall supersede any definition of the same term given in the FFACO.

Where terms are not defined in the regulations, the Permit or the FFACO, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

As used in this Permit, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular.

The following definitions apply throughout this Permit:

a. The term "**Critical Systems,**" as applied to determining whether a permit modification is required, means those specific portions of a TSD unit's structure or equipment whose failure could lead to the release of dangerous waste into the environment and/or systems which include processes which treat, transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical system list, or in the absence of a critical system list, WAC 173-303-830 modifications shall be considered.

b. The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit or attachments, Fluor Daniel Hanford, Inc. (FDH), Pacific Northwest National Laboratory (PNNL), and Bechtel Hanford, Inc. (BHI).

c. The term "**Dangerous Waste**" means those solid wastes designated under Chapter 173-303 WAC as dangerous or extremely hazardous waste. As used in the Permit, the word "dangerous waste" shall refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely hazardous waste).

d. The term "**Days**" means calendar days, unless specifically identified otherwise. Any submittal, notification, or recordkeeping requirement that would be due under the Conditions of this Permit on a Saturday, Sunday, or federal or state holiday shall be due on the following business day, unless specifically specified otherwise in the Permit.

e. The term "**Department**" means the Washington State Department of Ecology (with the address as specified on page one (1) of this Permit).

f. The term "**Director**" means the Director of the Washington State Department of Ecology or a designated representative. The Program Manager of the Nuclear Waste Program (with the address as specified on page one of this Permit) is a duly authorized and designated representative of the Director for purposes of this Permit.

g. The term "**Facility**" means all contiguous land, structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing,

treating, or disposing of dangerous waste. The legal and physical description of the Facility is set forth in Attachment 2 of this Permit.

h. The term "**FFACO**" means the Hanford Federal Facility Agreement and Consent Order, as amended.

i. The term "**RCRA Permit**" means the Dangerous Waste Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Dangerous Waste (Dangerous Waste Permit) issued by the Washington State Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter 173-303 WAC coupled with the HSWA Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Hazardous Waste (HSWA Permit) issued by the EPA, Region 10, pursuant to 42 U.S.C. 6901 et seq. and 40 CFR Parts 124 and 270.

j. The term "**Permittees**" means the United States Department of Energy (owner/operator), Fluor Daniel Hanford, Inc. (co-operator), Bechtel Hanford, Inc. (co-operator), and Pacific Northwest National Laboratory (co-operator).

k. The term "**Raw Data**" means the initial value of analog or digital instrument outputs and/or manually recorded values obtained from measurement tools or personal observation. These values are converted into reportable data (e.g., concentration, percent moisture) via automated procedures and/or manual calculations.

l. The term "**Reasonable Times**" means normal business hours, hours during which production, treatment, storage, construction, disposal, or discharge occurs or times when the Department suspects a violation requiring immediate inspection.

m. The term "**Significant Discrepancy**" in regard to a manifest or shipping paper means a discrepancy between the quantity or type of dangerous waste designated on the manifest or shipping paper and the quantity or type of dangerous waste a TSD unit actually receives. A significant discrepancy in quantity is a variation greater than ten (10) percent in weight for bulk quantities (e.g., tanker trucks, railroad tank cars, etc.) or any variation in piece count for nonbulk quantities (i.e., any missing container or package would be a significant discrepancy). A significant discrepancy in type is an obvious physical or chemical difference which can be discovered by inspection or waste analysis (e.g., waste solvent substituted for waste acid).

n. The term "**Unit**" (or "**TSD unit**"), as used in Parts I through VI of this Permit, means the contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area. A TSD unit, for purposes of this Permit, is a subgroup of the Facility which has been identified in a Hanford Facility Dangerous Waste Part A Permit Application Form 3.

ACRONYMS

AGENCY	U.S. Environmental Protection Agency, Region X
APP	Used to Denote Appendix Page Numbers
BHI	Bechtel Hanford, Inc.
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980 (as Amended by the Superfund Reauthorization Act of 1986)
CFR	Code of Federal Regulations
CIP	Construction Inspection Plan
CLP	Contract Laboratory Program
Department	Washington State Department of Ecology
DOE-RL	U.S. Department of Energy, Richland Operations Office
EC	Emergency Coordinator
Ecology	Washington State Department of Ecology
ECN	Engineering Change Notice
EPA	U.S. Environmental Protection Agency
FDH	Fluor Daniel Hanford, Inc.
FFACO	Hanford Federal Facility Agreement and Consent Order
HSWA	Hazardous and Solid Waste Amendments of 1984
HWMA	Hazardous Waste Management Act
MTCA	Model Toxics Control Act
NCR	Nonconformance Report
616 NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility
OSWER	Office of Solid Waste and Emergency Response
PNNL	Pacific Northwest National Laboratory
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCRA	Resource Conservation and Recovery Act of 1976
RCW	Revised Code of Washington
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act of 1986
SOP	Standard Operating Procedure
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
TSD	Treatment, Storage, and/or Disposal

1	USDOE	U.S. Department of Energy
2	WAC	Washington Administrative Code
3	WAP	Waste Analysis Plan

PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

I.A.1.a. The Permittees are authorized to treat, store, and dispose of dangerous waste in accordance with the Conditions of this Permit and in accordance with the applicable provisions of Chapter 173-303 WAC (including provisions of the Chapter as they have been applied in the FFACO). Any treatment, storage, or disposal of dangerous waste by the Permittees at the Facility that is not authorized by this Permit, or by WAC 173-303-400 (including provisions of this regulation as they have been applied in the FFACO) for those TSD units not subject to this Permit, and for which a permit is required by Chapter 173-303 WAC, is prohibited.

TSD units operating or closing under interim status shall maintain interim status until that TSD unit is incorporated into Part III, V, and/or VI of this Permit or until interim status is terminated under WAC 173-303-805(8). Interim status units shall be incorporated into this Permit through the Permit modification process.

I.A.1.b. The Conditions of this Permit shall be applied to the Facility as defined by the Permit Applicability Matrix (Attachment 3).

I.A.2. USDOE is responsible for activities which include, but are not limited to, the overall management and operation of the Facility.

Fluor Daniel Hanford, Inc. is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

PNNL is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

BHI is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

I.A.3. **Coordination With The FFACO**

Each TSD unit shall have an application for a final status permit or closure/post-closure plan submitted to the Department in accordance with the schedules identified in the FFACO (Milestone M-20-00). After completion of the permit application or closure plan review, a final permit decision will be made pursuant to WAC 173-303-840. Specific conditions for each TSD unit shall be incorporated into this Permit in accordance with the Class 3 permit modification procedure identified in Condition I.C.3., at the time identified in the five year Permit Modification Schedule in Attachment 27.

I.B. PERSONAL AND PROPERTY RIGHTS

This Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, or any invasion of other private rights, or any violation of federal, state, or local laws or regulations.

I.C. PERMIT ACTIONS

I.C.1. **Modification, Revocation, Reissuance, or Termination**

This Permit may be modified, revoked and reissued, or terminated by the Department for cause as specified in WAC 173-303-830(3),(4), and (5).

I.C.2. **Filing of a Request**

The filing of a request for a permit modification, or revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on the part of the Permittees shall not stay the applicability or enforceability of any Condition except as provided in WAC 173-303-830(3),(4), and (5).

I.C.3. **Modifications**

Except as provided otherwise by specific language in this Permit, the Permit modification procedures of WAC 173-303-830 shall apply to modifications or changes in design or operation of the Facility or any modification or change in dangerous waste management practices covered by this Permit. As an exception, the Permittees shall provide notifications to the Department required by WAC 173-303-830(4)(a)(i)(A) on a quarterly basis. Each quarterly notification shall be submitted within ten (10) days of the end of the quarter and provide the required information for all such modifications put into effect during that reporting period. Quarterly reporting periods shall be based upon the state Fiscal Year.

I.D. SEVERABILITY

I.D.1. **Effect of Invalidation**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is contested and/or held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state statutory or regulatory provision which forms the basis for any Condition of this Permit does not affect the validity of any other state statutory or regulatory basis for said Condition.

I.D.2. **Final Resolution**

In the event that a Condition of this Permit is stayed for any reason, the Permittees shall continue to comply with the related applicable and relevant interim status standards in WAC 173-303-400 until final resolution of the stayed Condition, unless the Department determines compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other Conditions of this Permit which have not been stayed, or unless the FFACO authorizes an alternative action, in which case the Permittees shall comply with the FFACO.

I.E DUTIES AND REQUIREMENTS

I.E.1. **Duty to Comply**

The Permittees shall comply with all Conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit issued under WAC 173-303-804. Any Permit noncompliance other than noncompliance authorized by an emergency permit constitutes a violation of Chapter 70.105 RCW, as amended, and is grounds for enforcement action, Permit termination, modification or revocation and reissuance of the Permit, and/or denial of a Permit renewal application.

I.E.2. **Compliance Not Constituting Defense**

Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and

Reauthorization Act of 1986 (42 U.S.C. 9601 et seq.), or any other federal, state, or local law governing protection of public health or the environment; provided, however, that compliance with this Permit during its term constitutes compliance at those areas subject to this Permit for the purpose of enforcement with WAC 173-303-140, WAC 173-303-180, WAC 173-303-280 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and WAC 173-303-830, except for Permit modifications and those requirements not included in the Permit that become effective by statute, or that are promulgated under 40 CFR Part 268 restricting the placement of dangerous waste in or on the land.

I.E.3. **Duty to Reapply**

If the Permittees wish to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittees must apply for and obtain a new Permit, in accordance with WAC 173-303-806(6).

I.E.4. **Permit Expiration and Continuation**

This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration date until the effective date of the new permit if the Permittees have submitted a timely, complete application for renewal per WAC 173-303-806 and, through no fault of the Permittees, the Department has not made a final Permit determination as set forth in WAC 173-303-840.

I.E.5. **Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense in the case of an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditions of this Permit.

I.E.6. **Duty to Mitigate**

In the event of noncompliance with the Permit, the Permittees shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to minimize or correct adverse impacts on human health and the environment.

I.E.7. **Proper Operation and Maintenance**

The Permittees shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the Permittees to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the Conditions of the Permit.

I.E.8. **Duty to Provide Information**

The Permittees shall furnish to the Department, within a reasonable time, any relevant Information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittees shall also furnish to the Department, upon request, copies of records required to be kept by this Permit.

I.E.9. **Inspection and Entry**

The Permittees shall allow the Department, or authorized representatives, upon the presentation of Department credentials, to:

I.E.9.a. During operating hours, and at all other reasonable times, enter and inspect the Facility or any unit or area within the Facility where regulated activities are located or conducted, or where records must be kept under the Conditions of this Permit;

I.E.9.b. Have access to, and copy, at reasonable times, any records that must be kept under the Conditions of this Permit;

I.E.9.c. Inspect at reasonable times any portion of the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,

I.E.9.d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by state law, as amended, for substances or parameters at any location.

I.E.10. **Monitoring and Records**

I.E.10.a. Samples and measurements taken by the Permittees for the purpose of monitoring required by this Permit shall be representative of the monitored activity. Sampling methods shall be in accordance with WAC 173-303-110 or 40 CFR 261, unless otherwise specified in this Permit or agreed to in writing by the Department. Analytical methods shall be as specified in the most recently published test procedure of the documents cited in WAC 173-303-110(3)(a) through (d), unless otherwise specified in this Permit or agreed to in writing by the Department.

I.E.10.b. The Permittees shall retain at the TSD unit(s), or other location approved by the Department, as specified in Parts III, V, and/or VI of this Permit, records of monitoring information required for compliance with this Permit, including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of reports and records required by this Permit, and records of data used to complete the application for this Permit for a period of at least ten (10) years from the date of the sample, measurement, report, or application, unless otherwise required for certain information by other Conditions of this Permit. This information may be retained on electronic media.

I.E.10.c. The Permittees shall retain at the Facility, or other approved location, records of all monitoring and maintenance records, copies of all reports and records required by this Permit, and records of all data used to complete the application for this Permit which are not associated with a particular TSD unit for a period of at least ten (10) years from the date of certification of completion of post-closure care or corrective action for the Facility, whichever is later. This information may be retained on electronic media.

I.E.10.d. The record retention period may be extended by request of the Department at any time by notification, in writing, to the Permittees and is automatically extended during the course of any unresolved enforcement action regarding this Facility to ten (10) years beyond the conclusion of the enforcement action.

I.E.10.e. Records of monitoring information shall include:

i. The date, exact place and time of sampling or measurements;

ii. The individual who performed the sampling or measurements and their affiliation;

iii. The dates the analyses were performed;

iv. The individual(s) who performed the analyses and their affiliation;

v. The analytical techniques or methods used: and.

vi. The results of such analyses.

I.E.11. **Reporting Planned Changes**

The Permittees shall give notice to the Department as soon as possible of any planned physical alterations or additions to the Facility subject to this Permit. Such notice does not authorize any noncompliance with or modification of this Permit.

I.E.12. **Certification of Construction or Modification**

The Permittees may not commence treatment, storage, or disposal of dangerous wastes in a new or modified portion of TSD units subject to this Permit until:

i. The Permittees have submitted to the Department, by certified mail, overnight express mail, or hand delivery, a letter signed by the Permittees and a registered professional engineer stating that the TSD unit has been constructed or modified in compliance with the Conditions of this Permit: and,

ii. The Department has inspected the modified or newly constructed TSD unit, and finds that it is in compliance with the Conditions of this Permit; or

iii. Within 15 days of the date of receipt of the Permittees' letter, the Permittees have not received notice from the Department of its intent to inspect, prior inspection is waived, and the Permittees may commence treatment, storage, and disposal of dangerous waste.

I.E.13. **Anticipated Noncompliance**

The Permittees shall give at least 30 days advance notice to the Department of any planned changes in the Facility subject to this Permit or planned activity which might result in noncompliance with Permit requirements.

If 30 days advance notice is not possible, then the Permittees shall give notice immediately after the Permittees become aware of the anticipated noncompliance. Such notice does not authorize any noncompliance with or modification of this Permit.

I.E.14. **Transfer of Permits**

This Permit may be transferred to a new owner only if it is modified or revoked and reissued pursuant to WAC 173-303-830(3)(b). The Permit may be transferred to a new co-operator in accordance with the provisions of WAC 173-303-830(2). Before transferring ownership or operation of the Facility during its operating life, the Permittees shall notify the new owner or operator in writing of the requirements of WAC 173-303-600 and -806 and this Permit.

I.E.15. **Immediate Reporting**

I.E.15.a. The Permittees shall verbally report to the Department any release of dangerous waste or hazardous substances, or any noncompliance with the Permit which may endanger human health or the environment. Any such information shall be reported immediately after the Permittees become aware of the circumstances.

I.E.15.b. The immediate verbal report shall contain all the information needed to determine the nature and extent of any threat to human health and the environment, including the following:

i. Name, address, and telephone number of the Permittee responsible for the release or noncompliant activity;

ii. Name, location, and telephone number of the unit at which the release occurred;

iii. Date, time, and type of incident;

iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazard to the environment and human health, where this is applicable;

vii. Estimated quantity of released material that resulted from the incident; and,

viii. Actions which have been undertaken to mitigate the occurrence.

I.E.15.c. The Permittees shall report, in accordance with Conditions I.E.15.a. and I.E.15.b., any information concerning the release or unpermitted discharge of any dangerous waste or hazardous substances that may cause an endangerment to drinking water supplies or ground or surface waters, or of a release or discharge of dangerous waste or hazardous substances or of a fire or explosion at the Facility, which may threaten human health or the environment. The description of the occurrence and its cause shall include all information necessary to fully evaluate the situation and to develop an appropriate course of action.

I.E.15.d. For any release or noncompliance not required to be reported to the Department immediately, a brief account must be entered within two (2) working days, into the TSD operating record, for a TSD unit, or into the Facility operating record, inspection log or separate spill log, for non-TSD units. This account must include: the time and date of the release, the location and cause of the release, the type and quantity of material released, and a brief description of any response actions taken or planned.

I.E.15.e. All releases, regardless of location of release or quantity of release, shall be controlled and mitigated, if necessary, as required by WAC 173-303-145(3).

I.E.16. **Written Reporting**

Within 15 days after the time the Permittees become aware of the circumstances of any noncompliance with this Permit which may endanger human health or the environment, the Permittees shall provide to the Department a written report. The written report shall contain a description of the noncompliance and its cause (including the information provided in the verbal notification); the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue if the noncompliance has not been corrected; corrective measures being undertaken to mitigate the situation, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

I.E.17. **Manifest Discrepancy Report**

I.E.17.a. For dangerous waste received from outside the Facility, whenever a significant discrepancy in a manifest is discovered, the Permittees shall attempt to reconcile the discrepancy. If not reconciled within 15 days of discovery, the Permittees shall submit a letter report in accordance with WAC 173-303-370(4), including a copy of the applicable manifest or shipping paper, to the Department.

I.E.17.b. For dangerous waste which is being transported within the Facility (i.e., shipment of on-site generated dangerous waste), whenever a significant discrepancy in the shipping papers (see Condition II.Q.1.) is discovered, the Permittees shall attempt to reconcile the discrepancy. If not reconciled within 15 days of discovery, the Permittees shall note the discrepancy in the receiving unit's operating record.

I.E.18. **Unmanifested Waste Report**

The Permittees shall follow the provisions of WAC 173-303-370 for the receipt of any dangerous waste shipment from off-site. The Permittees shall also submit a report in accordance with WAC 173-303-390(1) to the Department within 15 days of receipt of any unmanifested dangerous waste shipment received from off-site sources.

I.E.19. **Other Noncompliance**

The Permittees shall report to the Department all instances of noncompliance not otherwise required to be reported elsewhere in this Permit at the time the Annual Dangerous Waste Report is submitted.

I.E.20. **Other Information**

Whenever the Permittees become aware that they have failed to submit any relevant facts in a permit application, closure plan, or post-closure plan, or submitted incorrect information in a permit application, closure plan, or post-closure plan, or in any report to the Department, the Permittees shall promptly submit such facts or corrected information.

I.E.21. **Reports, Notifications and Submissions**

All written reports, notifications or other submissions which are required by this Permit to be sent or given to the Director or Department should be sent certified mail, overnight express mail, or hand delivered to:

Department of Ecology
200 Area Section
1315 West Fourth Avenue
Kennewick, Washington 99336
Telephone: (509) 735-7581

Telephonic and oral reports/notifications also need to be provided to the Department's Kennewick Office.

This is the current phone number and address and may be subject to change. The Department shall give the Permittees written notice of a change in address or telephone number. It is the responsibility of the Permittees to ensure any required reports, notifications, or other submissions are transmitted to the addressee listed in this Condition. However, the Permittees shall not be responsible for ensuring verbal and written correspondence reaches a new address or telephone number until after their receipt of the Department's written notification.

I.E.22. **Annual Report**

The Permittees shall comply with the annual reporting requirements of WAC 173-303-390(2)(a) through (e) and (g).

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to the Department which require certification shall be signed and certified in accordance with WAC 173-303-810(12) and (13). All other reports required by this Permit and other information requested by the Department shall be signed in accordance with WAC 173-303-810(12).

I.G. CONFIDENTIAL INFORMATION

The Permittees may claim confidential any information required to be submitted by this Permit, at the time of submission, in accordance with WAC 173-303-810(15).

I.H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittees shall maintain at the Facility, or some other location approved by the Department, the following documents and amendments, revisions, and modifications to these documents:

1. This Permit and all attachments;
2. All dangerous waste Part B permit applications, post-closure permit applications, and closure plans; and,
3. The Facility Operating Record.

These documents shall be maintained for ten (10) years after post-closure care or corrective action for the Facility, whichever is later, has been completed and certified as complete.

PART II - GENERAL FACILITY CONDITIONS

II.A. FACILITY CONTINGENCY PLAN

II.A.1. The Permittees shall immediately carry out the provisions of the Contingency Plan as provided in Attachment 4, pursuant to WAC 173-303-360(2), whenever there is a release of dangerous waste or dangerous waste constituents, or other emergency circumstance, either of which threatens human health or the environment.

II.A.2. The Permittees shall comply with the requirements of WAC 173-303-350(4), as provided in the Hanford Facility Contingency Plan (Attachment 4). The Hanford Facility Contingency Plan contains reference to unit-specific contingency plans included in Part III of this Permit.

II.A.3. The Permittees shall review and amend, if necessary, the Hanford Facility Contingency Plan, as provided in Permit Attachment 4, pursuant to WAC 173-303-350(5) and in accordance with the provisions of WAC 173-303-830(4). The plan shall be amended within a period of time agreed upon by the Department.

II.A.4. The Permittees shall comply with the requirements of WAC 173-303-350(3) and -360(1) concerning the emergency coordinator, except the names and home telephone numbers will be on file with the single point-of-contact, phone number (509) 373-3800 or 375-2400 as described in the Hanford Facility Contingency Plan.

II.A.5. [Reserved]

II.B. PREPAREDNESS AND PREVENTION

II.B.1. The Permittees shall equip the Facility with the equipment specified in the Hanford Facility Contingency Plan (Attachment 4) pursuant to WAC 173-303-340(1). Unit-specific preparedness and prevention provisions are included in Parts III, V, and/or VI of this Permit.

II.B.2. The Permittees shall test and maintain the equipment specified in the previous condition as necessary to assure proper operation in the event of emergency.

II.B.3. The Permittees shall maintain access to communications or alarms pursuant to WAC 173-303-340(2), as provided in the Hanford Facility Contingency Plan (Attachment 4) and unit-specific contingency plans.

II.B.4. The Permittees shall comply with WAC 173-303-340(4) and WAC 173-303-355(1) pertaining to arrangements with local authorities.

II.C. PERSONNEL TRAINING

II.C.1. The Permittees shall conduct personnel training as required by WAC 173-303-330. The Permittees shall maintain documents in accordance with WAC 173-303-330(2) and (3). Training records may be maintained in the Hanford Facility operating record or on electronic data storage.

II.C.2. All Hanford Facility personnel shall receive general Facility training within six (6) months of hire. This training shall provide personnel with orientation of dangerous waste management activities being conducted on the Hanford Facility. This training shall include:

II.C.2.a. Description of emergency signals and appropriate personnel response,

II.C.2.b. Identification of contacts for information regarding dangerous waste management activities,

II.C.2.c. Introduction to waste minimization concepts,

II.C.2.d. Identification of contact(s) for emergencies involving dangerous waste, and

II.C.2.e. Familiarization with the Hanford Facility Contingency Plan.

II.C.3. Description of training plans for personnel assigned to TSD units subject to this Permit are delineated in the unit-specific chapters in Parts III, V, and/or VI of this Permit.

II.C.4. The Permittees shall provide the necessary training to non-Facility personnel (i.e., visitors, sub-contractors) as appropriate for the locations such personnel will be at and the activities that will be undertaken. At a minimum, this training shall describe dangerous waste management hazards at the Facility.

II.D. WASTE ANALYSIS

II.D.1. All waste analyses required by this Permit shall be conducted in accordance with a written waste analysis plan (WAP) or sampling and analysis plan (SAP). Operating TSD units shall have a WAP, which shall be approved through incorporation of the TSD unit into Part III of this Permit. Closing TSD units and units in post-closure should have a SAP and, if necessary, a WAP which shall be approved through incorporation of the TSD unit into Part V and/or VI of this Permit.

II.D.2. Until a WAP is implemented in accordance with Condition II.D.1., any unit(s) identified in Parts III, V, and/or VI of this Permit without a unit-specific waste analysis plan approved by the Department shall not treat, store, or dispose of dangerous waste, unless specified otherwise by the Department in writing.

II.D.3. Each TSD unit WAP shall include:

i. The parameters for which each dangerous waste will be analyzed, and the rationale for selecting these parameters;

ii. The methods of obtaining or testing for these parameters;

iii. The methods for obtaining representative samples of wastes for analysis (representative sampling methods are discussed in WAC 173-303-110(2);

iv. The frequency with which analysis of a waste will be reviewed or repeated to ensure that the analysis is accurate and current;

v. The waste analyses which generators have agreed to supply;

vi. Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods as specified in WAC 173-303-630 through 173-303-670; and,

vii. For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest or shipping paper. This includes at least:

(1) The procedure for identifying each waste movement at the Facility; and,

(2) The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling.

II.D.4. Should waste analysis be required by this Permit at a location on the Facility other than at a TSD unit, a SAP shall be maintained by the Permittees and made available upon request from the Department. Any SAP required by this Permit not associated with a particular TSD unit shall include the elements of Conditions II.D.3.(i) through II.D.3.(iv).

II.E. QUALITY ASSURANCE/QUALITY CONTROL

II.E.1. All WAPs and SAPs required by this Permit shall include a quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document which will be used and includes, the elements defined in Conditions II.E.2. and II.E.3. The QA/QC plan may be part of a SAP, WAP, or equivalent.

II.E.2. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following:

II.E.2.a. A Data Collection Strategy section including, but not limited to, the following:

i. A description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses; and,

ii. A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;

II.E.2.b. A Sampling section which shall include or describe and reference or cite:

i. Sampling methods including the identification of sampling equipment, a description of purging procedures, and a description of decontamination procedures to be used;

ii. Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection points and frequencies;

iii. Criteria for providing a statistically sufficient number of samples as defined in EPA guidance or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the DQO planning process;

iv. Methods for, or specification of, measuring all necessary ancillary data;

v. Criteria for, or specification of, determining conditions under which sampling should be conducted;

vi. Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point and the frequency that each parameter is to be measured;

vii. Criteria for, or specification of, identifying the type of sampling (e.g., composites vs. grabs) and number of samples to be collected;

viii. Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;

ix. Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including:

(1) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters and absorbing reagents);

(2) Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples;

(3) Documentation of specific sample preservation method;

(4) Calibration of field devices;

(5) Collection of replicate samples;

(6) Submission of field-biased blanks, where appropriate;

(7) Potential interferences present at the facility;

(8) Field equipment listing and sample containers;

(9) Sampling order; and,

(10) Descriptions of decontamination procedures.

x. Selection of appropriate sample containers, as applicable;

xi. Sample preservation methods, as applicable; and,

xii. Chain-of-custody procedure descriptions as applicable, including:

(1) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment; and,

(2) Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label.

II.E.2.c. Where applicable, a Field Measurements section which shall address:

i. Selecting appropriate field measurement locations, depths, etc.;

ii. Providing a statistically sufficient number of field measurements as defined in EPA guidance or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the DQO process;

iii. Measuring all necessary ancillary data;

iv. Determining conditions under which field measurements should be conducted;

v. Determining which media are to be addressed by appropriate field measurements (e.g., ground water, air, soil, sediment, etc.);

vi. Determining which parameters are to be measured and where;

vii. Selecting the frequency of field measurement and length of field measurements period; and,

viii. Documenting field measurement operations and procedures, including:

(1) Descriptions of procedures and forms for recording raw data and the specific location, time, and sampling conditions;

(2) Calibration of field devices;

(3) Collection of replicate measurements;

(4) Submission of field-biased blanks, where appropriate;

(5) Potential interferences present at the facility;

(6) Field equipment listing; and,

(7) Descriptions of decontamination procedures.

II.E.2.d. Where applicable, a Sample Analysis section which shall specify the following:

i. Chain-of-custody procedures, including:

(1) Certification that all samples obtained for analysis will be delivered to a responsible person at the recipient laboratory who is authorized to sign for

incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;

(2) Provision for a laboratory sample custody log; and,

(3) Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis.

ii. Sample storage procedure descriptions and storage times;

iii. Sample preparation methods;

iv. Descriptions of analytical procedures, including:

(1) Scope and application of the procedure;

(2) Sample matrix;

(3) Potential interferences;

(4) Precision and accuracy of the methodology; and,

(5) Method detection limits.

v. Descriptions of calibration procedures and frequency;

vi. Data reduction, validation, and reporting;

vii. Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, including:

(1) Method blank(s);

(2) Laboratory control sample(s);

(3) Calibration check sample(s);

(4) Replicate sample(s);

(5) Matrix-spiked sample(s);

(6) "Blind" quality control;

(7) Control charts;

(8) Surrogate samples;

(9) Zero and span gases; and,

(10) Reagent quality control checks.

II.E.3. Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. The Data Management Plan shall include the following as applicable:

II.E.3.a. A data record including the following:

i. Unique sample or field measurement code;

ii. Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type;

iii. Sampling or field measurement raw data;

iv. Laboratory analysis ID number;

v. Result of analysis (e.g., concentration);

vi. Elevations of reference points for all ground water level measurements, including water level elevation, top of casing elevation, and ground surface elevation; and,

vii. Magnetic computer records of all ground water, soil, surface water, and sediment analytical data.

II.E.3.b. Tabular displays, as appropriate, illustrating:

i. Unsorted validated and invalidated data;

ii. Results for each medium and each constituent monitored;

iii. Data reduction for statistical analysis;

iv. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and,

v. Summary data.

II.E.3.c. Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following:

i. Displays of sampling location and sampling grid;

ii. Identification of boundaries of sampling area and areas where more data are required;

iii. Displays of concentrations of contamination at each sampling location;

iv. Displays of geographical extent of contamination;

v. Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility;

vi. Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters;

vii. Identification of features affecting intramedia transport and identification of potential receptors;

viii. For each round of ground water level measurements, maps showing the distribution of head measurements in each aquifer; and,

ix. For each well, provide a hydrograph that shows the distribution of water level measurements taken during the time interval of the investigation.

II.E.4. Unless otherwise agreed upon in writing by the Department, the Permittees shall provide notification of availability to the Department of all data obtained pursuant to this Permit within 30 days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If the Department agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within 30 days of first availability along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify the department within 30 days with an explanation and revision, if applicable. This notification requirement shall also apply to any other information obtained

from activities conducted, or data obtained, that may influence activities pursuant to this Permit.

II.E.5. The level of QA/QC for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Permit may be based upon Department approved data quality objectives for the sample. These data quality objectives shall be approved by the Department, in writing, or through incorporation of unit plans and permits into Parts III, V, and/or VI of this Permit.

II.F. GROUNDWATER AND VADOSE ZONE MONITORING

The Permittees shall comply with the groundwater monitoring requirements of WAC 173-303-645. This Condition shall apply only to those wells the Permittees use for the groundwater monitoring programs applicable to the TSD units incorporated into Parts III, V, and/or VI of this Permit. Where releases from TSD units subject to this Permit have been documented or confirmed by investigation, or where vadose zone monitoring is proposed for integration with groundwater monitoring, the Permittees shall evaluate the applicability of vadose zone monitoring. The Permittees shall consult with the Department regarding the implementation of these requirements. If agreed to by the Department, integration of groundwater and vadose zone monitoring for reasons other than this Permit may be accommodated by this Permit. Results from other investigation activities shall be used whenever possible to supplement and/or replace sampling required by this Permit.

II.F.1. **Purgewater Management**

Purgewater shall be handled in accordance with the requirements set forth in Attachment 5, *Purgewater Management Plan*.

II.F.2. **Well Remediation and Abandonment**

II.F.2.a. The Permittees shall inspect the integrity of active resource protection wells as defined by WAC 173-160-030 subject to this Permit at least once every five (5) years. These inspections shall be recorded in the Operating Record. The Permittees shall prepare and maintain a plan and schedule by January 26, 1995, specifying the schedule and technical standards for this program. The Permittees shall provide a copy of this plan upon the request of the Department.

II.F.2.b. The permittees shall evaluate resource protection wells subject to this Permit according to Sections 4.1. through 4.8.3. of the *Hanford Well Remediation and Decommissioning Plan* (Attachment 6) and the Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990 (Attachment 7) to determine if a well has a potential use as a qualified well. The Permittees shall abandon or remediate unusable wells according to the requirements of Chapter 18.104 RCW, Chapter 173-160 WAC, and Chapter 173-162 WAC to ensure that the integrity of wells subject to this Permit is maintained. The timeframe for this remediation will be specified in Parts III, V, and/or VI of this Permit.

II.F.2.c. The Department shall receive notice in writing at least 72 hours before the Permittees remediate (excluding maintenance activities) or abandon any well subject to this Permit.

II.F.2.d. For wells subject to this Permit, the Permittees shall achieve full compliance with Chapter 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule agreed to by the Department and the Permittees. This process shall be completed by the year 2012.

II.F.3. **Well Construction**

All wells constructed pursuant to this Permit shall be constructed in compliance with Chapter 173-160 WAC.

II.G. SITING CRITERIA

The Permittees shall comply with the applicable notice of intent and siting criteria of WAC 173-303-281 and WAC 173-303-282, respectively.

II.H. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittees shall comply with the following:

II.H.1. **Cost Estimate for Facility Closure**

The Permittees shall submit an annual report updating projections of anticipated costs for closure and post-closure of TSD units incorporated into Parts III, V, and/or VI of this Permit. This report will be submitted annually, by October 31, to the Department and reflect cost updates as of September 30, of the past Fiscal Year.

II.H.2. **Cost Estimate for Post-Closure Monitoring and Maintenance**

The Permittees shall submit an annual report updating projections of anticipated costs for post-closure monitoring and maintenance for TSD units incorporated into Parts III, V, and/or VI of this Permit. This report will be submitted annually, by October 31, to the Department and reflect cost updates as of September 30, of the past Fiscal Year.

II.H.3. The Permittees are exempt from the requirements of WAC 173-303-620

II.I. FACILITY OPERATING RECORD

II.I.1. The Permittees shall maintain a written Facility Operating Record until ten (10) years after post-closure or corrective action is complete and certified for the Facility, whichever is later. Except as specifically provided otherwise in this Permit, the Permittees shall also record all information referenced in this Permit in the Facility Operating Record within seven (7) working days after the information becomes available. A TSD unit-specific operating record shall be maintained for each TSD unit at a location identified in Parts III, V, and VI of this Permit. Each TSD unit-specific operating record shall be included by reference in the Facility Operating Record. Information required in each TSD unit-specific operating record is identified on a unit-by-unit basis in Part III or V of this Permit. The Facility Operating Record shall include, but not limited to, the following information:

II.I.1.a. A description of the system(s) currently utilized to identify and map solid waste management units and their locations. The description of the system(s) is required to include an identification of on-site access to the system's data, and an on-site contact name and telephone number. In addition to, or as part of, this system(s), the Permittees shall also maintain a list identifying active 90-day waste storage areas and dangerous waste satellite accumulation areas and their locations. The list shall identify the location, the predominant waste types managed at the area, and a date identifying when the list was compiled. Maps shall be provided by the Permittees upon request by the Department;

II.I.1.b. Records and results of waste analyses required by WAC 173-303-300;

II.I.1.c. An identification of the system(s) currently utilized to generate Occurrence Reports. The identification of the system(s) is required to include a description, an identification of an on-

site location of hard-copy Occurrence Reports, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.d. Copies of all unmanifested waste reports;

II.I.1.e. Hanford Facility Contingency Plan as well as summary reports and details of all incidents that require implementing the Contingency Plan, as specified in WAC 173-303-360(2)(k);

II.I.1.f. An identification of the system(s) currently utilized and being developed to record personnel training records and to develop training plans. The identification of the system(s) is required to include a description, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.g. Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and documentation of refusal by state or local authorities that have declined to enter into agreements in accordance with WAC 173-303-340(5);

II.I.1.h. [Reserved]

II.I.1.i. An identification and description of the report containing closure and post-closure cost estimates required by Conditions II.H.1. and II.H.2. The identification shall provide the on-site location and document number of the report;

II.I.1.j. Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any TSD unit subject to this Permit. This documentation shall be maintained in the receiving unit's operating record from the time the waste is received;

II.I.1.k. An identification of the system(s) currently utilized to cross-reference waste locations to specific manifest document numbers. The identification of the system(s) is required to include a thorough description, an identification of an on-site location of a hard-copy data report, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.l. [Reserved]

II.I.1.m. Annual Reports required by this Permit;

II.I.1.n. An identification of all systems currently utilized to record monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation. The identification of systems shall include a description of the systems. The descriptions shall include a confirmation that the criteria of Condition I.E.10.e. is provided by the utilization of the system. The identification of the systems shall also include an identification of on-site access to the system's data, an on-site contact name and telephone number;

II.I.1.o. [Reserved]

II.I.1.p. Summaries of all records of groundwater corrective action required by WAC 173-303-645;

II.I.1.q. An identification of the system(s) currently being utilized and being developed to evaluate compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The identification of the system(s) shall include a description of the system(s), an identification of on-site access to the system's data, and an on-site contact name and telephone number. The description of the system(s) shall also include a definition of which portion(s) of the system(s) are accessible to the Department;

II.I.1.r. All deed notifications required by this Permit (to be included by reference);

II.I.1.s. All inspection reports required by this Permit; and,

II.I.1.t. All other reports as required by this Permit, including ECNs and NCRs.

II.I.2. The descriptions of systems and/or reports required in Conditions II.I.1.a., II.I.1.c., II.I.1.f., II.I.1.i., II.I.1.k., II.I.1.n., and II.I.1.q., shall be placed in the Facility Operating Record within twelve months of the effective date of this Permit.

II.J. FACILITY CLOSURE

II.J.1. Final closure of the Hanford Facility will be achieved when closure activities for all TSD units have been completed, as specified in Parts III, IV, V, or VI of this Permit. Completion of these activities shall be documented using either certifications of closure, in accordance with WAC 173-303-610(6), or certifications of completion of post-closure care, in accordance with WAC 173-303-610(11).

II.J.2. The Permittees shall close all TSD units as specified in Parts III, V, and/or VI of this Permit.

II.J.3. The Permittees shall submit a written notification of or request for a permit modification in accordance with the provisions of WAC 173-303-610(3)(b) whenever there is a change in operating plans, facility design, or the approved closure plan. The written notification or request must include a copy of the amended closure plan for review or approval by the Department.

II.J.4. The Permittees shall close the Facility in a manner that:

II.J.4.a. Minimizes the need for further maintenance;

II.J.4.b. Controls, minimizes or eliminates to the extent necessary to protect human health and the environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated run-off, or dangerous waste decomposition products to the ground, surface water, ground water, or the atmosphere; and,

II.J.4.c. Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity.

II.J.4.d. Meets the requirements of WAC 173-303-610(2)(b).

II.K. SOIL/GROUNDWATER CLOSURE PERFORMANCE STANDARDS

II.K.1. For purposes of Condition II.K., the term "clean closure" shall mean the status of a TSD unit at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-610(2)(b) provided certification of such closure has been accepted by the Department.

II.K.2. The Permittees may close a TSD unit to background levels as defined in Department approved Hanford Site Background Documents if background concentrations exceed the levels prescribed by Condition II.K.1. Closure to these levels, provided the Permittees comply with all other closure requirements for a TSD unit as identified in Parts III, V, and/or VI of this Permit, shall be deemed as "clean closure."

II.K.3. Except for those TSD units identified in Conditions II.K.1., II.K.2., or II.K.4., the Permittees may close a TSD unit to a cleanup level specified under Method C of Chapter 173-340 WAC. Closure of a TSD unit to these levels, provided the Permittees comply with all other closure requirements for the TSD unit as specified in Parts III, V, and/or VI of the Permit, and provided the Permittees comply with Conditions II.K.3.a. through II.K.3.c., shall be deemed as a "modified closure."

II.K.3.a. For "modified closures," the Permittees shall provide institutional controls in accordance with WAC 173-340-440 which restricts access to the TSD unit for a minimum of five (5) years

following completion of closure. The specific details and duration of institutional controls shall be specified in Parts III, V, and/or VI of this Permit for a particular TSD unit.

II.K.3.b. For "modified closures," the Permittees shall provide periodic assessments of the TSD unit to determine the effectiveness of the closure. The specific details of the periodic assessments shall be specified in Parts III, V, and/or VI of this Permit. The periodic assessments shall include, as a minimum, a compliance monitoring plan in accordance with WAC 173-340-410 that will address the assessment requirements on a unit by unit basis. At least one (1) assessment activity shall take place after a period of five (5) years from the completion of closure, which will demonstrate whether the soils and groundwater have been maintained at or below the allowed concentrations as specified in Parts III, V, or VI of this Permit. Should the required assessment activities identify contamination above the allowable limits as specified in Parts III, V, and/or VI, the TSD unit must be further remediated or the requirements of II.K.4. must be followed. Should the required assessment activities demonstrate that contamination has diminished or remained the same, the Permittees may request that the Department reduce or eliminate the assessment activities and/or institutional controls.

II.K.3.c. For "modified closures," the Permittees shall specify the specific activities required by this Condition in a post-closure permit application.

II.K.4. For any TSD unit which Conditions II.K.1., II.K.2., or II.K.3., are not chosen as the closure option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the TSD unit as a landfill must follow the procedures and requirements specified in WAC 173-303-610.

II.K.5. The cleanup option selected shall be specified in Parts III, V, and/or VI of this Permit and shall be chosen with consideration of the potential future site use for that TSD unit/area. Definitions contained within Chapter 173-340 WAC shall apply to Condition II.K. where definitions are not otherwise provided by this Permit, the FFACO, or Chapter 173-303 WAC.

II.K.6. Deviations from a TSD unit closure plan required by unforeseen circumstances encountered during closure activities which do not impact the overall closure strategy but provide equivalent results shall be documented in the TSD unit-specific operating record and made available to the Department upon request or during the course of an inspection.

II.K.7. Where agreed to by the Department, integration of other statutorily or regulatory mandated cleanups may be accommodated by this Permit. Results from other cleanup investigation activities shall be used whenever possible to supplement and/or replace TSD unit closure investigation activities. All, or appropriate parts of, multipurpose cleanup and closure documents can be incorporated into this Permit through the Permit modification process. Cleanup and closures conducted under any statutory authority with oversight by either the Department or the Agency which meets the equivalent of the technical requirements of Conditions II.K.1. through II.K.4. may be considered as satisfying the requirements of this Permit.

II.L. DESIGN AND OPERATION OF THE FACILITY

II.L.1. **Proper Design and Construction**

The Permittees shall design, construct, maintain, and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water which could threaten human health or the environment.

II.L.2. **Design Changes, Nonconformance, and As-Built Drawings**

II.L.2.a. The Permittees shall conduct all construction subject to this Permit in accordance with the approved designs, plans and specifications that are required by this Permit unless authorized otherwise in Conditions II.L.2.b. or II.L.2.c. For purposes of Conditions II.L.2.b. and II.L.2.c., a Department construction inspector or TSD unit manager are designated representatives of the Department.

II.L.2.b. During construction of a project subject to this Permit, changes to the approved designs, plans and specifications shall be formally documented with an Engineering Change Notice (ECN). All ECNs shall be maintained in the TSD unit-specific operating record and shall be made available to the Department upon request or during the course of an inspection. The Permittees shall provide copies of ECNs affecting any critical system to the Department within five (5) working days of initiating the ECN. Identification of critical systems shall be included by the Permittees in each TSD unit-specific dangerous waste permit application, closure plan or Permit modification, as appropriate. The Department will review an ECN modifying a critical system and inform the Permittees within two (2) working days in writing whether the proposed ECN, when issued, will require a Class 1, 2, or 3 permit modification. If after two (2) working days the Department has not responded, it will be deemed as acceptance of the ECN by the Department.

II.L.2.c. During construction of a project subject to this Permit, any work completed which does not meet or exceed the standards of the approved design, plans and specifications shall be formally documented with a nonconformance report (NCR). All NCRs shall be maintained in the TSD unit-specific operating record and shall be made available to the Department upon request or during the course of an inspection. The Permittees shall provide copies of NCRs affecting any critical system to the Department within five (5) working days after identification of the nonconformance. The Department will review an NCR affecting a critical system and inform the Permittees within two (2) working days in writing whether a permit modification is required of any nonconformance and whether prior approval is required from the Department before work proceeds which affects the nonconforming item. If the Department does not respond within two (2) working days, it will be deemed as acceptance and no permit modification is required.

II.L.2.d. Upon completion of a construction project subject to this Permit, the Permittees shall produce as-built drawings of the project which incorporate the design and construction modifications resulting from all project ECNs and NCRs as well as modifications made pursuant to WAC 173-303-830. The Permittees shall place the drawings into the operating record within 12 months of completing construction, or within an alternate period of time specified in a unit-specific Condition in Part III or V of this Permit.

II.L.3. **Facility Compliance**

The Permittees in receiving, storing, transferring, handling, treating, processing, and disposing of dangerous waste shall design, operate, and/or maintain the Facility in compliance with all applicable federal, state, and local laws and regulations.

II.M. SECURITY

The Permittees shall comply with the security provisions of WAC 173-303-310. The Permittees may comply with the requirements of WAC 173-303-310(2) on a unit-by-unit basis.

II.N. RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE

II.N.1. **Receipt of Off-Site Waste**

The Permittees shall comply with Conditions II.N.2. and II.N.3. for any dangerous wastes which are received from either sources outside the United States or from off-site generators.

II.N.2. **Waste From Sources Outside the United States**

The Permittees shall meet the requirements of WAC 173-303-290(1) for waste received from outside the United States.

II.N.3. **Notice to Generator**

For waste received from off-site sources (except where the owner/operator is also the generator), the Permittees shall inform the generator in writing that they have the appropriate permits for, and will accept, the waste the generator is shipping, as required by WAC 173-303-290(3). The Permittees shall keep a copy of this written notice as part of the TSD unit-specific operating record.

II.O. GENERAL INSPECTION REQUIREMENTS

II.O.1. The Permittees shall inspect the Facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health. Inspections must be conducted in accordance with the provisions of WAC 173-303-320(2). In addition to the TSD unit inspections specified in Parts III, V, and/or VI, the following inspections will also be conducted:

II.O.1.a. The 100, 200 East, 200 West, 300, 400, and 1100 areas shall be inspected annually.

II.O.1.b. The Permittees shall inspect the banks of the Columbia River, contained within the Facility boundary, two (2) times yearly. One (1) inspection shall occur at the low water mark of the year and one (1) inspection shall occur at a time chosen by the Permittees. These inspections shall be performed from the river, by boat, and the inspectors shall follow the criteria in Condition II.0.1.c.

II.O.1.c. The Permittees shall visually inspect the areas identified in Conditions II.O.1.a. and II.O.1.b. for malfunctions, deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or that threaten human health. Specific items to be noted are as follows:

i. Remains of waste containers, labels, or other waste management equipment;

ii. Solid waste disposal sites not previously identified for remedial action;

iii. Uncontrolled waste containers (e.g., orphan drums);

iv. Temporary or permanent activities that could generate an uncontrolled waste form; and,

v. Unpermitted waste discharges.

II.O.1.d. The Permittees shall notify the Department at least seven (7) days prior to conducting these inspections in order to allow representatives of the Department to be present during the inspections.

II.O.2. If the inspection by the Permittees conducted pursuant to Condition II.O.1. reveals any problems, the Permittees shall take remedial action on a schedule agreed to by the Department.

II.O.3. The inspection of high radiation areas will be addressed on a case-by-case basis in either Part III of this Permit or prior to the inspections required in Condition II.O.1.

II.P. MANIFEST SYSTEM

II.P.1. The Permittees shall comply with the manifest requirements of WAC 173-303-370 for waste received from off-site and WAC 173-303-180 for waste shipped off-site.

II.P.2. Transportation of dangerous wastes along State Highways 240, 24, and 243, and Route 4 South (Stevens Drive) south of the Wye Barricade, if such routes are not closed to general public access at the time of shipment, shall be manifested pursuant to Condition II.P.1.

II.Q. ON-SITE TRANSPORTATION

II.Q.1. Documentation must accompany any on-site dangerous waste which is transported to or from any TSD unit subject to this Permit through or within the 600 Area, unless the roadway is closed to general public access at the time of shipment. Waste transported by rail or by pipeline is exempt from this Condition. This documentation shall include the following information, unless other unit-specified provisions are designated in Part III or V:

II.Q.1.a. Generator's name, location, and telephone number;

II.Q.1.b. Receiving TSD unit's name, location, and telephone number;

II.Q.1.c. Description of waste;

II.Q.1.d. Number and type of containers;

II.Q.1.e. Total quantity of waste;

II.Q.1.f. Unit volume/weight;

II.Q.1.g. Dangerous waste number(s); and,

II.Q.1.h. Any special handling instructions.

II.Q.2. All non-containerized solid, dangerous waste transported to or from TSD units subject to this Permit shall be covered to minimize the potential for material to escape during transport.

II.R. EQUIVALENT MATERIALS

II.R.1. The Permittees may substitute an equivalent or superior product for any equipment or materials specified in this Permit. Use of equivalent or superior products shall not be considered a modification of this Permit. A substitution will not be considered equivalent unless it is at least as effective as the original equipment or materials in protecting human health and the environment.

II.R.2. The Permittees shall place in the operating record (within seven (7) days after the change is put into effect) the substitution documentation, accompanied by a narrative explanation, and the date the substitution became effective. The Department may judge the soundness of the substitution.

II.R.3. If the Department determines that a substitution was not equivalent to the original, it will notify the Permittees that the Permittees' claim of equivalency has been denied, of the reasons for the denial, and that the original material or equipment must be used. If the product

substitution is denied, the Permittees shall comply with the original approved product specification or find an acceptable substitution.

II.S. LAND DISPOSAL RESTRICTIONS

Unless specifically identified otherwise in the FFACO, the Permittees shall comply with all Land Disposal Restriction requirements as set forth in WAC 173-303-140.

II.T. ACCESS AND INFORMATION

To the extent that work required by this Permit must be done on property not owned or controlled by the Permittees, the Permittees must utilize their best efforts to obtain access and information at these locations.

II.U. MAPPING OF UNDERGROUND PIPING

II.U.1. By September 30, 1996, the Permittees shall submit a report to the Department which describes the procedures proposed to be used to compile the information required by Conditions II.U.2., II.U.3., and II.U.4. The report shall describe the methods which will be used to retrieve the piping information, the estimated accuracy of the data to be provided, quality assurance and/or quality control techniques to be employed including field verification activities (i.e., surveying, ground penetrating radar, etc.) to support information gathered from existing drawings, and conceptual examples of the product which will be submitted.

II.U.2. By September 29, 1997, the Permittees shall make an initial submittal to the Department of maps showing the location of dangerous waste underground pipelines (including active, inactive, and abandoned pipelines which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC) on the Facility which are located outside of the fences enclosing the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps shall identify the origin, destination, size, depth, and type (i.e., reinforced concrete, stainless steel, cast iron, etc.) of each pipe and the location of their diversion boxes, valve pits, seal pots, catch tanks, receiver tanks, and pumps, utilizing Washington State Plane Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing drawings, the most probable material type shall be provided. These maps shall be accompanied by a description of the quality assurance and quality control measures used to compile the maps.

The age of all pipes required to be identified pursuant to this Condition shall be documented in an attachment to the submittal. If the age cannot be documented, an estimate of the age of the pipe shall be provided based upon best engineering judgment.

These maps, and any attachments, shall be maintained in the Facility Operating Record and updated annually after the initial submittal with new or revised information. Each map submittal required by this Condition shall incorporate information available six (6) months before the scheduled submittal date.

II.U.3. By September 28, 1998, the Permittees shall make an initial submittal to the Department of piping schematics for dangerous waste underground pipelines (including active, inactive, and abandoned pipelines which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and 100K Areas. The piping schematics shall identify the origin, destination, and direction of flow for each pipe, as well as whether the pipe is active, inactive, or abandoned. These schematics need not include the pipes within a fenced tank farm or within a building/structure. These schematics shall be accompanied by a description of the quality assurance and quality control measures used to compile the maps.

These schematics and any attachments, shall be maintained in the Facility Operating Record and updated annually after the initial submittal with new or revised information. Each map submittal required by this Condition shall incorporate information available six months before the scheduled submittal date.

II.U.4. By September 28, 1998, the Permittees shall make an initial submittal to the Department of maps showing the location of dangerous waste underground pipelines (including active, inactive, and abandoned pipelines which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps will incorporate information available six months prior to the scheduled submittal date. Thereafter, the maps will be updated on an annual basis to incorporate additional information, as such information becomes available in accordance with the FFACO milestone schedule. A schedule for the provision of map input shall be included in the report specified in Condition II.U.1.

The maps shall identify the origin, destination, size, depth and type (i.e., reinforced concrete, stainless steel, cast iron, etc.) of each pipe and the location of their diversion boxes, valve pits, seal pots, catch tanks, receiver tanks, and pumps, and utilize Washington State Plan Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing drawings, the most probable material type shall be provided. These maps need not include the pipes within a fenced tank farm or within a building/structure. These maps shall be accompanied by a description of the quality assurance/quality control used to compile the maps.

The age of all pipes required to be identified pursuant to this Condition shall be documented in an attachment to the submittal. If the age cannot be documented, an estimate of the age of the pipe shall be provided based upon best engineering judgment.

These maps, and any attachments, shall be maintained in the Facility Wide Operating Record and updated annually after the initial submittal with new or revised information.

II.V. MARKING OF UNDERGROUND PIPING

By September 29, 1997, the Permittees shall mark the underground pipelines identified in Condition II.U.2. These pipelines shall be marked at the point they pass beneath a fence enclosing the 200 East, 200 West, 300, 400, 100N, or 100K Areas, at their origin and destination, at any point they cross an improved road and every 100 meters along the pipeline corridor where practicable. The markers shall be labeled with a sign that reads "Buried Dangerous Waste Pipe" and shall be visible from a distance of 15 meters.

II.W. OTHER PERMITS AND/OR APPROVALS

II.W.1. The Permittees shall be responsible for obtaining all other applicable federal, state, and local permits authorizing the development and operation of the Facility. To the extent that work required by this Permit must be done under a permit and/or approval pursuant to other regulatory authority, the Permittees shall use their best efforts to obtain such permits. Copies of all documents relating to actions taken, pursuant to this Condition, shall be kept in the operating record.

II.W.2. All other permits related to dangerous waste management activities are severable and enforceable through the permitting authority under which they are issued.

II.W.3. All air emissions from TSD units subject to this Permit shall comply with all applicable state and federal regulations pertaining to air emission controls, including but not limited to, Chapter 173-400 WAC, General Regulations for Air Pollution Sources; Chapter 173-460

WAC, Controls for New Sources of Toxic Air Pollutants; and Chapter 173-480 WAC, Ambient Air Quality Standards and Emission Limits for Radionuclides.

II.X. SCHEDULE EXTENSIONS

II.X.1. The Permittees shall notify the Department in writing as soon as possible of any deviations or expected deviations from the schedules of this Permit. The Permittees shall include with the notification all information supporting their claim that they have used best efforts to meet the required schedules. If the Department determines that the Permittees have made best efforts to meet the schedules of this Permit, the Department shall notify the Permittees in writing by certified mail that the Permittees have been granted an extension. Such an extension shall not require a permit modification under Condition I.C.3. Should the Department determine that the Permittees have not made best efforts to meet the schedules of this Permit, the Department may take such action as deemed necessary.

Copies of all correspondence regarding schedule extensions shall be kept in the operating record.

II.X.2. Any schedule extension granted through the approved change control process identified in the FFACO shall be incorporated into this Permit. Such a revision shall not require a Permit modification under Condition I.C.3.

PART III - UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

CHAPTER 1

616 Nonradioactive Dangerous Waste Storage Facility

The 616 Nonradioactive Dangerous Waste Storage Facility (NRDWSF) is an active storage unit for dangerous wastes that are shipped to off-site commercial treatment or disposal facilities. This Chapter sets forth the operating Conditions for this TSD unit.

III.1.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in the *616 Nonradioactive Dangerous Waste Storage Facility Permit Application, Rev. 2*, as found in Attachment 8, including all Class 1 and Class 3 Modifications specified below and Revision 6 of the Part A, Form 3, dated October 1, 1996. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 6

Section 2.1.3	The 616 Nonradioactive Dangerous Waste Storage Facility Description, from Class 1 Modification for quarter ending June 30, 1995
Section 2.2	Topographic Maps
Section 2.5	Performance Standards, from Class 1 Modification for quarter ending June 30, 1995
Section 2.7.1	Spills and Discharges Into the Environment, from Class 1 Modification for quarter ending June 30, 1995
Section 2.8	Manifest System, from Class 1 Modification for quarter ending June 30, 1995
Chapter 3.0	Waste Characteristics, from Class 1 Modification for quarter ending June 30, 1995
Chapter 4.0	Process Information, from Class 1 Modification for quarter ending June 30, 1995
Chapter 6.0	Procedures to Prevent Hazards, from Class 3 Modification submitted during Modification B
Chapter 7.0	Contingency Plan, from Class 1 Modification for quarter ending June 30, 1995
Chapter 8.0	Personnel Training, from Class 1 Modification for quarter ending December 31, 1995
Chapter 11.0	Closure and Post-Closure Requirements, from Class 1 Modification for quarter ending June 30, 1995
Chapter 12.0	Reporting and Recordkeeping, from Class 1 Modification for quarters ending June 30, 1995, and September 30, 1995
Section 13.7	Toxic Substance Control Act of 1976
Section 13.8	Other Requirements
Appendix 2A	Drawing H-13-000014, 616 NRDWSF Topographic Map

	Appendix 4B	Drawing H-6-1553, Architectural Plan, Elevations and Sections, Rev. 3
	Appendix 4B	Drawing H-6-1556, Structural Plan and Sections, Rev. 4, and four engineering change notices from Class 1 Modification for quarter ending June 30, 1995
	Appendix 7A	Building Emergency Plan - 616 Building, from Class 1 Modification for quarter ending December 31, 1994
	Appendix 8A	Training Plan from Class 1 Modification for quarter ending June 30, 1996
	Appendix 11B	Description of Procedures from Class 1 Modification for quarter ending June 30, 1995

III.1.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

The following amendments, II.1.B (a through bbb), have been reflected in the respective documents and will be deleted from the permit in Revision 4, 1997.

III.1.B.a. Page 2-7, line 25. The words "can be" are changed to "shall be."

III.1.B.b. Page 2-16, line 45. An additional bullet is added to the text which reads as follows: "In addition, all reporting requirements identified in Conditions I.E.15. through I.E.22. of this Permit shall be complied with."

III.1.B.c. Page 2-17, line 24. The word "voluntarily" is deleted from the text.

III.1.B.d. Page 2-17, line 26. The words "information on" is changed to "requirements for."

III.1.B.e. Page 3-6, line 44. The term "Table 3-3" is deleted and replaced with "Sections 3.2.2 through 3.2.4 and 3.2.6."

III.1.B.f. Page 3-7, lines 8-11. These lines are deleted and replaced with the following:

"Prior to acceptance of wastes at 616 NRDWSF, confirmation of designation may be required by Solid Waste Engineering (Section 3.2.4). The wastes which shall undergo confirmation of designation are identified in Condition III.1.B.n. of this Permit and may be divided into two groups; those that easily yield a representative sample (Category I), and those that do not (Category II). The steps for each type are outlined below along with a description of which wastes fall into each category:

Category I. If a waste which easily yields a representative sample is received, a representative sample will be taken of the waste. If more than one phase is present, each phase must be tested individually. The following field tests will be performed:

* Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide tests. These tests will not be performed on materials known to be organic peroxides, ethers, and/or water reactive compounds.
* Flashpoint/explosivity - by HAZCAT™ flammability procedure, explosive atmosphere meter[1], or a closed cup flashpoint measurement instrument[1].
* pH - by pH meter[1] or pH paper (SW-846-9041)[2]. This test will not be performed on non-aqueous materials.
* Halogenated organic compounds - by Chlor-D-Tect™ kits.
* Volatile organic compounds - by photo or flame ionization tester[1], by gas chromatography with or without mass spectrometry, or by melting point and/or boiling point determination.

[1]These instruments are field calibrated or checked for accuracy daily when in use.

[2]The pH paper must have a distinct color change every 0.5 pH unit and each batch of paper must be calibrated against certified pH buffers or by comparison with a pH meter calibrated with certified pH buffers.

If the waste meets the parameters specified in its documentation, within a 10% tolerance, confirmation of designation is complete. If it does not meet these parameters, sample and analyze the materials in accordance with WAC 173-303-110. See Table 3-4 for a list of analytical methodologies and Table 3-5 for sampling methodologies. This is considered a significant error under Section 3.2.4. Re-assess and re-designate the waste. Repackage and label as necessary or return to the generating unit.

When mathematically possible, the Permittees shall perform confirmation on an equal number of Category I and Category II containers.

Category II. If a representative sample is not easily obtained (for example, discarded machinery or shop rags) or if the waste is a labpack or discarded laboratory reagent container, the following steps will be performed:

a. Visually verify the waste. Labpacks and combination packages must be removed from the outer container. If the waste meets the parameters specified in its documentation, confirmation of designation is complete. If it does not meet these parameters, proceed to the next step. This is considered a significant error under Section 3.2.4.

b. If possible and necessary, segregate/repackage the waste for shipment in a compliant manner. If the waste is not packaged in compliance with shipping requirements, proceed to the next step.

c. The waste must be re-designated using designation methods identified in WAC 173-303-070 through 173-303-100."

III.1.B.g. Page 3-7, line 17. The following line is added: "Petitions to use an alternate test method shall be submitted in accordance with WAC 173-303-910."

III.1.B.h. Page 3-7, line 18. The following paragraph is added: "All analytical tests performed to fulfill the requirements of Sections 3.2.4 and 4.1.1.8 (Frequency of Analysis and Removal of Liquids from Containment System, respectively) shall be performed in accordance with WAC 173-303-110. New test methods shall be used within 90 days of the effective date of the state regulations or laws that mandate the use of the test method. To ensure analytical quality control, all analyses must fulfill, at a minimum, the quality procedures specified in SW-846 Volume II."

III.1.B.i. Page 3-7, line 33. The words "is adequate" are deleted and replaced with "must be adequate."

III.1.B.j. Page 3-7, line 35. The words "is performed" are deleted and replaced with "must be performed."

III.1.B.k. Page 3-7, line 40. The word "representative" is inserted between the words "obtaining" and "samples."

III.1.B.l. Page 3-8, line 1. The following sentence is inserted before the word "Appropriate:" "To ensure sample quality control, all sampling efforts must, at a minimum, be in accordance with the procedures specified in WAC 173-303-110."

III.1.B.m. Page 3-8, line 1. "Appropriate preservation" is deleted and replaced with "Appropriate packaging and preservation."

III.1.B.n. Page 3-8, line 8. The following paragraph is added:

"At least five percent (5%) of the waste containers stored at 616 NRDWSF during a federal fiscal year (October 1 through September 30) will undergo confirmation of designation pursuant to Sections 3.2.2 and 3.2.3 (Test Methods and Sampling Methods, respectively). The number of containers to meet the five percent (5%) requirement is the average of containers for the previous three months. For example, if 200 containers are received in January, 180 in February, and 220 in March then 10 containers of inbound waste must undergo confirmation of designation in April. All generating units which ship more than twenty (20) containers through 616 NRDWSF in a fiscal year will have at least one (1) container sampled and analyzed. Containers for which there is insufficient process knowledge or analytical information to designate without sampling and analysis may not be counted as part of the five percent (5%) requirement unless there is additional confirmation of designation independent of the generator designation. The generating unit's staff shall not select the waste containers to be sampled and analyzed other than identifying containers for which insufficient information is available to designate."

III.1.B.o. Page 3-8, line 20. Delete the first sentence of the paragraph and replace it with the following: "To be acceptable at 616 NRDWSF, samples of non-radioactive waste streams must be documented to have been sent to a laboratory for waste profiling when newly identified or whenever the process used or raw materials usage changes, and at least annually thereafter, to ensure that the waste designation assigned by the Solid Waste Engineering staff (Section 3.2) is accurate and in compliance with land ban restrictions."

III.1.B.p. Page 3-8, line 29. The words "For two months" are deleted and replaced with "For the next six shipments or two months, whichever is longer, to 616 NRDWSF."

III.1.B.q. Page 3-8, line 32. The following line is added to the end of the paragraph: "The laboratory verification results shall be obtained in accordance with WAC 173-303-110."

III.1.B.r. [Reserved]

III.1.B.s. Page 4-5, line 4. Add the following after the word "performed:" "after determination by the Building Emergency Director (BED) that implementation of the Contingency Plan pursuant to Appendix 7A is not necessary or all necessary actions in accordance with the Contingency Plan have been implemented. Either case must be recorded and signed in the TSD unit-specific operating record by the BED."

III.1.B.t. [Reserved]

III.1.B.u. Page 4-5, line 32. The following sentence is added: "The 616 NRDWSF staff will ensure that waste is properly packaged, labeled, marked, and stored."

III.1.B.v. Page 4-5, line 46. The sentence "Wherever possible, organic free water will be used as the collection medium to minimize the generation of additional dangerous waste." is deleted.

III.1.B.w. Page 4-5, line 46. The following sentence is added after "spilled material:" "All samples taken to verify that the site of a release is clean will be obtained in accordance with the applicable standards of Section 11.1.5. et seq."

III.1.B.x. Figure 6-2, Section 2.0, Hallway. Revise the checklist to read "Protective equipment supply present per the emergency equipment list." This equipment shall be individually inspected and documented by type, and be in adequate condition, and in the quantities listed. The revised checklist shall be submitted for approval to the Department within 30 days of the effective date of this Permit.

III.1.B.y. Page 8-28, lines 5 through 8. These lines are deleted.

III.1.B.z. Chapter 11. All sampling and analyses necessary for soils underneath a contaminated concrete layer must be performed prior to removal of the overlying concrete. All soils which exceed the clean closure standards of WAC 173-303-610(2)(b) shall be managed in a manner analogous to that for contaminated surrounding soil as described in Chapter 11 of Attachment 8.

III.1.B.aa. Page 11-2, line 1. The words "In general," are deleted from the text. The "t" on "these" is capitalized to read "These."

III.1.B.bb. Table 11-1, page T11-1. In addition to the analyses in Table 11-1, the concrete samples shall also be analyzed for all dangerous waste constituents documented to have been spilled at the 616 NRDWSF during its operating life. These analyses shall be performed in accordance with WAC 173-303-110 including the quality assurance and quality control requirements delineated in SW-846. Action levels shall be based on the level of quantitation for each analyte. Final decisions based on health based standards shall be subject to approval or rejection by the Department.

III.1.B.cc. Page 12-5, line 28. Replace the words "via line management, that the" with "via line management, when the."

III.1.B.dd. Page 12-5, line 41. The words, "outside the Hanford Facility" are deleted.

III.1.B.ee. Page 12-12, line 16. The last two sentences of this paragraph are deleted.

III.1.B.ff. Table 12-1 "Reports and Records." A definition of the footnote "a" is added to the bottom of the table as follows:

"[a] Hanford Facility means the reports and records are available through the Facility Regulatory File index pursuant to Section 12.0. Until the index is implemented, reports and records will be available at the Facility, but not necessarily at the 616 NRDWSF.

616 NRDWSF means the reports and records are available at the 616 NRDWSF office."

III.1.B.gg. Chemical, biological, and physical analyses of the dangerous waste to be handled at 616 NRDWSF pursuant to WAC 173-303-806(4)(a), entitled "616 Nonradioactive Dangerous Waste Facility Off-Site Shipping Lists," is found in Attachment 9 of this Permit.

III.1.B.hh. The description of procedures as referenced in Appendix 11B are provided in various sections of *Procedure Description*, January 13, 1991 (Attachment 10). The specific sections of Attachment 10 which are incorporated into the Permit are listed in Table III-1, below, by procedure. No part of Attachment 10 shall supersede any part of Attachment 8.

Number	Procedure	Pages	Sections
11B-1	Preparing Health and Safety Plan	1-4	1.0, 2.0, 3.0, 4.2, 5.0, 5.1, 5.2, 6.0, 6.1, 6.2
11B-2	Decontaminating Sampling Equipment	23-24	1.0, 2.0, 3.0, 5.2, 5.3, 6.1, 6.2, 6.3
11B-3	Evaluating Data	25-26, 28-29	1.0, 2.0, 3.0, 4.7, 5.0
11B-4	Packaging Samples	32-35	1.0, 4.0, 4.1, 5.0, 5.1, 5.2
11B-5	Soil and Sediment Sample Containers	6-11	1.0, 3.0, 4.2, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8
11B-6	Ensuring Quality Control of Records and Documentation	70-77	1.0, 3.0, 4.0, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 6.0, 6.2, 6.3, 6.4, 6.5, 6.6
11B-7	Maintaining a Field Logbook	44-48	1.0, 3.0, 5.0, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 6.0, 6.1, 6.2, 7.0
11B-8	Chain-of-Custody	39-43	1.0, 3.0, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 5.0, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.7
11B-9	Controlling Unknown Suspected Waste	49-59	1.0, 3.0, 4.1, 4.2, 4.3, 4.4, 4.5, 5.0, 5.1, 5.2, 6.0, 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11
11B-10	Deviating from Procedures Used During Closure	60-64	1.0, 2.0, 4.0, 4.2, 5.0, 5.1, 5.2, 5.2.1, 5.2.2, 5.3

Table III-1: Procedures from Attachment 10.

III.1.B.ii. All instances where the emergency response number is cited as "811" shall be changed to "911."

III.1.B.jj. Part A Application, page 4 of 24, lines 18 and 19. Waste Code WC01 shall be deleted and the estimated annual volume of Waste Code WC02 shall be changed to 55,000 kilograms.

III.1.B.kk. Page 2-8, line 3. The following sentence shall be added: "A mechanical fork truck lift and associated safety equipment (guards, handrails, etc.) are mounted on the containment pad. Design drawings of the mechanical fork truck lift are provided in Appendix 4B."

III.1.B.ll. Page 2-16, lines 30 and 32. The address "7601 West Clearwater, Suite 102" shall be changed to "1315 West Fourth Avenue" and the telephone number "509-546-2990" shall be changed to "509-735-7581."

III.1.B.mm. Page 2-18, line 38. The following bullet shall be added: "• Evidence tape from field verified waste is untampered."

III.1.B.nn. Page 3-1, lines 12 through 14. The sentence beginning with "Nonradioactive dangerous waste . . ." shall be deleted and replaced with the following: "The 616 NRDWSF stores nonradioactive dangerous waste that is received from generating units located on the contiguous Hanford Facility and from DOE-RL owned and operated generators located on noncontiguous areas near the Hanford Facility (e.g., Federal Building and 712 Building in downtown Richland and the 3000 Area). This waste is stored at the 616 NRDWSF until it is transported to an offsite TSD facility."

III.1.B.oo. Page 3-1, line 20. The term "onsite" shall be deleted and replaced with "DOE-RL owned and operated."

III.1.B.pp. Page 3-1, lines 21 and 22. The sentence "Shipments are made from onsite generating units to the 616 NRDWSF" shall be deleted.

III.1.B.qq. Page 3-1, line 22. The term "onsite" shall be deleted and replaced with "Hanford Site." On line 26, the term "generated onsite" shall be deleted.

III.1.B.rr. Page 3-2, lines 14 and 19. The term "Onsite" shall be deleted.

III.1.B.ss. Page 3-3, lines 31 through 39. The paragraph on these lines shall be deleted.

III.1.B.tt. Page 3-4, lines 3 and 16. The term "onsite" shall be deleted.

III.1.B.uu. Page 3-5, lines 19, 36, 38, and 44. The term "onsite" shall be deleted.

III.1.B.vv. Page 3-6, lines 13, 15, 19, 23, and 24. The term "onsite" shall be deleted.

III.1.B.ww. Page 3-7, line 32. The term "suction pump" shall be added after the word "device."

III.1.B.xx. Page 3-8, line 8. The term "onsite" shall be deleted.

III.1.B.yy. Page 3-8, lines 37 through 40. The paragraph on these lines shall be deleted and replaced with the following: "All waste received at the 616 NRDWSF, as described in Section 3.1, is subject to the confirmation of designation sampling requirements described in Section 3.2. Each shipment of waste received at the 616 NRDWSF must be accompanied by accurate and complete waste tracking forms for waste received from onsite sources and uniform hazardous waste manifests for waste received from offsite sources."

III.1.B.zz. Page T4-2, line 31. The word "cabinet" shall be replaced with "cabinet(s)."

III.1.B.aaa. Page T4-2, line 34. The following option shall be added: "or 34 (55 gal) 34 (30 gal) (208.2 liters) (113.6 liters) 2 Flammable liquid storage cabinets (170 gal) (1,024 liters)."

III.1.B.bbb. Page APP 4B-ii. On line 12, the term "Rev. 2" shall be replaced with "Rev. 4." At line 13, the following shall be added:

"ECN 191786 (10/28/93)

ECN 176589 (11/16/93)

ECN 605639 (01/17/94)

ECN 605649 (08/01/94)"

CHAPTER 2

305-B Storage Facility

The 305-B Storage Facility (305-B) is an active storage unit for dangerous wastes and mixed wastes. These wastes are derived primarily from research and development activities and laboratory activities in the 300 Area. This Chapter sets forth the operating Conditions for this TSD unit.

III.2.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in the *305-B Storage Facility Dangerous Waste Permit Application*, as found in Attachment 18 including the amendments specified in Condition III.2.B. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 1

Section 2.1.2	The 305-B Storage Unit
Section 2.2.1	General Requirement
Section 2.5	Performance Standard
Section 2.6	Buffer Monitoring Zones
Section 2.8	Manifest System
Chapter 3.0	Waste Characteristics
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Post-Closure Requirements
Chapter 12.0	Reporting and Recordkeeping
Section 13.8	Toxic Substances Control Act
Section 13.9	Other Requirements
Appendix 2A	Hanford Site and 300-Area Topographic Maps, Plates 2-2 Through 2-9

III.2.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.2.B.a. For all shipments of dangerous waste to or from this TSD unit, except for shipments which occur wholly within the 300 Area, the Permittees shall comply with Conditions II.P. and II.Q. of this Permit regarding dangerous waste shipment manifesting and transportation.

III.2.B.b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding Land Disposal Restricted (LDR) wastes, the appropriate treatment standards, whether the waste meets the treatment standards, and the certification that the waste meets the treatment standards, if necessary, as well as any waste analysis data that supports the generator's determinations. If this information is not supplied by the generating unit, then the 305-B personnel shall be responsible for completion and transmittal of all subsequent information regarding LDR wastes, pursuant to 40 CFR 268.7(b). All waste streams must be re-characterized at least

annually, or when generating unit and/or 305-B personnel have reason to believe the waste stream has changed, to determine compliance with LDR requirements in 40 CFR 268."

III.2.B.c. Page 3-9, line 16. The following is added to the end of this section: "Storage limits for all chemicals are listed in Table 4-1, page 4-18, and 4-19 (Uniform Building Code, Table numbers 9-A and 9-B). This table is incorporated into this section by reference."

III.2.B.d. Page 3-10, line 27. The following paragraphs are inserted into this section:

"Prior to acceptance of wastes at 305-B, confirmation of designation may be required (Section 3.2.4). The wastes which shall undergo confirmation of designation are identified in Condition III.2.B.f. of this Permit and may be divided into two groups; those that easily yield a representative sample (Category I), and those that do not (Category II). The steps for each type are outlined below along with a description of which wastes fall into each category:

Category I. If a waste which easily yields a representative sample is received, a representative sample will be taken from the waste containers selected. If more than one phase is present, each phase must be tested individually. The following field tests will be performed:

* Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide tests. These tests will not be performed on materials known to be organic peroxides, ethers, and/or water reactive compounds.
* Flashpoint/explosivity - by HAZCAT™ flammability procedure, explosive atmosphere meter[1], or a closed cup flashpoint measurement instrument[1].
* pH - by pH meter[1] or pH paper (SW-846-9041)[2]. This test will not be performed on non-aqueous materials.
* Halogenated organic compounds - by Chlor-D-Tect™ kits.
* Volatile organic compounds - by photo or flame ionization tester[1], by gas chromatography with or without mass spectrometry, or by melting point and/or boiling point determination.

[1]These instruments are field calibrated or checked for accuracy daily when in use.

[2]The pH paper must have a distinct color change every 0.5 pH unit and each batch of paper must be calibrated against certified pH buffers or by comparison with a pH meter calibrated with certified pH buffers.

If the sample data observed meets the parameters specified in its documentation, within a 10% tolerance, confirmation of designation is complete and the waste may be accepted. If not, the waste is rejected and returned to the generating unit, and sampling and analysis of the waste is required to be included with a resubmitted CD/RR.

When mathematically possible, the Permittees shall perform confirmation on an equal number of Category I and Category II containers.

Category II. If a representative sample is not easily obtained (for example, discarded machinery or shop rags) or if the waste is a labpack or discarded laboratory reagent container, the following steps will be performed:

a. Visually verify the waste. Examine each selected container to assure that it matches the data provided on the CD/RR form(s) provided to document the waste. Labpacks and combination packages must be removed from the outer container. If the waste matches the description specified in its documentation, confirmation of designation is complete and the waste may be accepted. If not, the waste is rejected and returned to the generating unit, and the generating unit revises and resubmits the documentation to reflect the actual

contents. If necessary, the waste shall be re-designated utilizing the designation methods identified in WAC 173-303-070 through 173-303-100."

III.2.B.e. Page 3-10, line 32. The following is added to the end of this section: "Wastes must be analyzed using the TCLP in accordance with Appendix II of 40 CFR 261, as amended, in order to provide sufficient information for proper management and for decisions regarding Land Disposal Restrictions pursuant to 40 CFR 268."

III.2.B.f. Page 3-16, lines 24-28. Replace the existing language with: "At least five percent (5%) of the waste containers received at 305-B during a federal fiscal year (October 1 through September 30) will undergo confirmation of designation pursuant to Sections 3.2.2 and 3.2.3 (Test Methods and Sampling Methods, respectively). The number of containers needed to meet the 5% requirement is 5% of the average of containers for the previous three months. For example if 200 containers are received in January, 180 in February, and 220 in March, then 10 containers of received waste must undergo confirmation of designation in April. All generating units which ship more than twenty (20) containers through 305-B in a fiscal year will have at least one (1) container sampled and analyzed. Containers for which there is insufficient process knowledge or analytical information to designate without sampling and analysis may not be counted as part of the five percent requirement unless there is additional confirmation of designation independent of the generator designation. The generating unit's staff shall not select the waste containers to be sampled and analyzed other than identifying containers for which insufficient information is available to designate.

Containers of the following are exempt from the confirmation calculation above: Laboratory reagents or other unused products such as paint, lubricants, solvent, or cleaning products, whether received for redistribution, recycling, or as waste. To qualify for this exemption, such materials must be received at 305-B in their original containers."

III.2.B.g. Page 4-1, line 30. "and -630" is added after "WAC 173-303-190" in this sentence.

III.2.B.h. Page 4-1, line 45. Added to the end of this section is the following sentence: "Containers utilized for off-site shipment shall also comply with WAC 173-303-190(2) and (3). 305-B personnel shall comply with WAC 173-303-190(4)."

III.2.B.i. Page 4-24, line 21. The following paragraph is added to the end of Section 4.1.1.8.: "Verification sampling shall be carried out in accordance with Section 11.1.4.4. (Methods for sampling and testing to demonstrate success of decontamination)."

III.2.B.j. Page 7-3, line 1. This line is deleted.

III.2.B.k. Page 7-3, line 28. The following is added to the end of this Section: "The names and work phone numbers of the 305-B Emergency Coordinator(s) shall be submitted to the Department and the Agency and kept at the Single Point contact and with the contingency plan at the 305-B Unit."

III.2.B.l. Page 7-6, line 2. The following is added to this Section: "Samples of spilled or released material(s) shall be taken in accordance with the WAP found in Section 3.2."

III.2.B.m. Page 7-13, line 46. Added to the end of the second to last sentence is the following: "pursuant to WAC 173-303-360(2)(j)."

III.2.B.n. Page 7-23, line 35. The following bullet is added to this Section: "All local police and fire departments, hospitals, and state and local response teams that may be called upon to provide emergency services."

III.2.B.o. Page 8-2, line 28. The "I"s are replaced by "B"s on this line, changing the training frequency for Hazardous Waste Shipment Certification from initially to biennially.

In normal use, the storage capacity of this area is limited by the radionuclide limits imposed by the DOE for "low inventory facilities." These limitations are defined in DOE-STD-1027-92, Hazard Characterization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports, and are included in the radiation work permit for the mixed waste storage area."

III.2.B.ee. Page 6-1, lines 46-52. The paragraph beginning with the word "Access" shall be deleted.

III.2.B.ff. Page 6-3, lines 15-18. The first two sentences of this paragraph shall be deleted.

III.2.B.gg. Page 6-16, lines 15-19. The first five bullets shall be deleted and replaced with the following: "• 6 sets of chemically resistant suits, aprons, boots, and gloves."

III.2.B.hh. Page 7-17, lines 5-9. The first five bullets shall be deleted and replaced with the following: "• 6 sets of chemically resistant suits, aprons, boots, and gloves."

III.2.B.ii. Page 8-3, line 24. The following shall be added to the text: "Equivalent training may be taken in place of the training identified in Figure 8-1 with approval from the 305-B Unit Operating Supervisor or the Waste Management Section Manager. Documentation of the training substitution will be placed in the operating record (within seven (7) days after the training was received) accompanied by a narrative explanation, and the date of the training. The documentation shall be made available to the Department or EPA during inspections for assessment. If the Department or EPA determines that the training substitution was not equivalent to the original, the original training will be taken or an acceptable substitution will be found."

CHAPTER 3

PUREX Storage Tunnels

The PUREX Storage Tunnels are a mixed waste storage unit consisting of two underground railroad tunnels: Tunnel Number 1, designated 218-E-14, and Tunnel Number 2, designated 218-E-15. This chapter sets forth the operating conditions for this TSD unit.

III.3.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in the *PUREX Storage Tunnels Dangerous Waste Storage Permit Application*, Rev. 3, as found in Attachment 28, including the amendments specified in Condition III.3.B, if any exist. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 3

Section 2.1	The PUREX Storage Tunnels Description
Section 2.2	Topographic Map
Chapter 3.0	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 10.0	Waste Minimization
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record Keeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for PUREX Storage Tunnels
Appendix 4A	Engineering Drawings
Appendix 7A	Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage Tunnels
Appendix 8A	Dangerous Waste Training Plan for the PUREX Facility

III.3.B AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.3.B (None Required.)

CHAPTER 4

200 Area Liquid Waste Complex

The 200 Area Liquid Waste Complex is an aqueous waste treatment system consisting of two units: the Liquid Effluent Retention Facility (LERF) and the Effluent treatment Facility (ETF). This Chapter sets forth the operating Conditions for this TSD unit.

III.4.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittiees shall comply with all requirements set forth in the *200 Area Liquid Waste Complex Permit Application*, Rev.0, as found in Attachment 34, including the amendments specified in Condition III.5.B, if any exist. Enforceable portions of the application are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A, Form 3, Permit Application, Revision 5

Section 2.2	Topographic Map
Section 3.2	Waste Analysis Plan
Chapter 4.0	Process Information
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record Keeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility
Appendix 4A	Detailed Drawings for the Liquid Effluent Retention System
Appendix 4B	Detailed Drawings for the 200 area Effluent Treatment Facility Container Storage Area and Tank Systems

	Appendix 5A	Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, See Amendment III. 5.B.c
	Appendix 7A	Building Emergency Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility
	Appendix 8A	200 Area Liquid Waste Processing Facilities Administrative Policies, Dangerous Waste Training Plan

III.4.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.4.B.a. Section 4.4.6; add the following paragraph, "All tanks systems holding dangerous waste are marked with labels or signs to identify the waste contained in the tank. The labels or signs are legible at a distance of at least fifty feet and bear a legend that identifies the waste in a manner which adequately warns employees, emergency response personnel, and the public of the major risk(s) associated with the waste being stored or treated in the tank system(s).

III.4.B.b. Appendix 3A, Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

III.4.B.b.1. The Permittees shall comply with all the requirements subsections, figures, tables, and appendices included in the "Waste Analysis Plan for Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility," except that the "Wastewater Profile Sheet form is included as an example only. The actual Wastewater Profile Sheet format may vary, but will contain the same substantive information as the example form.

III.4.B.b.2. Section 1.0 Introduction

After lines 38 to 40 on page 1-2 ("Therefore, revisions of this WAP that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to review or approval by Ecology.") add the following: "However, any revision to this WAP will be incorporated into the Hanford Dangerous Waste Permit at least annually."

III.4.B.b.3. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description

Delete the word "access" in line 3 of page 1-3 and replace it with "aqueous."

III.4.B.b.4. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description

Delete the phrase "and analyzed" in line 28 of page 1-4. The sample of treated effluent from the verification tanks is not analyzed in-line, but is transfered to a laboratory for analysis.

III.4.B.b.5. Section 2.2 Waste Management Decision Process

Insert the word "to" in line 28 of page 2-4, so the item reads as follows: "An aqueous waste is not allowed under the current Discharge Permit or Final Delisting, and LERF/ETF

management elect not to pursue an amendment, or the permit and Delisting cannot be amended (Section 2.2.1)."

III.4.B.b.6. Section 4.1 Sampling Procedures

Replace the sentence. "Other exceptions will be handled on a case-by-case basis." with "Other exceptions will be handled on a case-by-case basis and the operating record will be maintained at the unit for inspection by the Department."

III.4.B.b.7. Section 6.1 Dry Powder Waste

The following terms used in this section, including powder, dry powder, waste powder, and dry waste powder, are equivalent to the term "dry powder waste" as defined in lines 21 through 28 on page 6-1.

III.4.B.b.8. Section 6.3 Other Waste Generated at the 200 Area Effluent Treatment Facility

Insert the phrase "according to Washington State regulatory requirements" after the word "designated" in line 11 on page 6-5.

III.4.B.b.9. Table 6-1. 200 Area Effluent Treatment Facility Powder, Concentrate, Tank, Maintenance and Operations, and Unknown Waste Sampling

Footnote 1 is revised as follows: For concentrate tank samples, the total sample (solid plus liquid) is analyzed and the analytical result is expressed on the dry weight basis. The result for each toxicity characteristic metal and organic is divided by a factor of 20 and then compared to the Toxicity Characteristic (TC) constituent limits [WAC 173-303-090(8)]. If the TC limit is met or exceeded, the waste is designated accordingly. All measured parameters are compared against the corresponding treatment standards.

III.4.B.b.10. Section 7.2 Analytical Program

The beginning of Section 7.2 Analytical Programs is repeated on page 7-1. Delete the portion on page 7-1. Replace the sentence "The quality control/quality assurance program of the onsite analytical laboratory is based on Hanford Site analytical services quality assurance/quality control requirements." with "The quality assurance/quality control program for sampling and must comply with the applicable Hanford Site standard requirements and the regulatory requirements. All analytical data will be defensible and will be traceable to specific, related quality control samples and calibrations."

III.4.B.b.11. Appendix B Table B-1 Sample and Analysis Criteria for Influent Aqueous Waste and Treated Effluent and Table B-2 Sample Containers, Preservative Methods, and Holding Times for ETF Powder, Concentrate Tank, Maintenance and Operations, and Unknown Waste

Footnote "c" on page APP B-2 is deleted.

III.4.B.c. Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, is an integral Part of this permit and is to be added as Appendix 5A to the 200 Area Liquid Waste Complex Permit Application.

III.4.B.d.	Appendix 7A, Building Emergency Plan for 200 Area Effluent Treatment Facility and Liquid Effluent Retention Facility.
III.4.B.d.1.	Section 3.2, add to end of first paragraph: "Only qualified personnel will perform response actions."
III.4.B.d.2.	Section 5.2.1, add to end of first sentence of first paragraph; "other than the radioactive/dangerous/mixed waste discussed in Section 5.2.3."

CHAPTER 5

242-A Evaporator

The 242-A Evaporator is a mixed waste treatment and storage unit consisting of a conventional forced-circulation, vacuum evaporation system to concentrate mixed-waste solutions. This Chapter sets forth the operating Conditions for this TSD unit.

III.5.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittiees shall comply with all requirements set forth in *242-A Evaporator Permit Application, Rev. 1*, as found in Attachment 35, including the amendments specified in Condition III.6.B, if any exist. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A, Form 3, Permit Application, Revision 7

Section 2.2	Topographic Map
Section 3.2	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record Keeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for 242-A Evaporator
Appendix 4A	Engineering Drawings
Appendix 4B	The 242-A Evaporator/Crystallizer Tank System Integrity Assessment Report
Appendix 7A	Building Emergency Plan for 242-A Evaporator
Appendix 8A	200 Area Liquid Waste Processing Facilities administrative Policies, Dangerous Waste Training Plan

III.5.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.5.B.a. Appendix 3A, Waste Analysis Plan (WAP) for 242-A Evaporator

III.5.B.a.1. Section 1.1 Purpose

The sentence beginning on line 23 of page 1-1 is modified to read as follows: "Sampling and analysis identified in the DQO analysis related to meeting RCRA requirements are included as an integral part of this WAP."

III.5.B.a.2. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 2, Page 5-4, Line 1, Change title to, "Candidate Feed Tank Limits for Vessel Vent Organic Discharge".

III.5.B.a.3. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 3, Page 5-5, Add footnote "f" to title of the table and add footnote "f. This table is used to ensure process condensate generated from candidate feed tank treatment is within Liquid Efluent Retention Facility liner compatibility limits."

III.5.B.a.4. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control

Delete lines 5 through 6 on page 6-2 ("Trip blanks are analyzed for those constituents detected in the field blanks.") and replace with the following: "Trip blanks are analyzed as independent samples for volatile organics analysis.

III.5.B.a.5. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control

Delete the word "discrete" from line 18 on page 6-2 and insert the word "unique."

III.5.B.a.6. Section 6.1.3. Process Condensate Sample Collection

Append to lines 32 through 33 on page 6-2 ["Samples of process condensate are collected in a manner consistent with SW-846 procedures (EPA 1986)."] the following text: "...as documented in sampling procedures which are maintained and implemented by unit personnel."

III.5.B.a.7. Table 5. Analytes for Candidate Feed Tanks.

On page 6-4, delete the word "method" and insert the word "technique" in the heading of column 2.

III.5.B.a.8. Section 7.3 Laboratory Quality Assurance and Quality Control

In line 40, delete "matrix spike –" and in line 43, replace "accuracy" with "precision" and add a new sentence at the end of the paragraph, "Accuracy for DSC is evaluated by using the laboratory control standard."

III.5.B.a.9. Section 7.3 Laboratory Quality Assurance and Quality Control

Add a new paragraph, "The quality assurance/quality control program for sampling and analysis related to this unit must, at a minimum, comply with the applicable Hanford Site standard requirements and the regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations."

III.5.B.a.10. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

Delete the word "Objectives" from the title of the table and insert the word "Requirements."

III.5.B.a.11. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

In column 4, delete the words "matrix spike", so the heading reads as follows: "Precision (RPD between duplicates), %."

III.5.B.a.12. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

Delete Footnote 1 and replace with "Reserved".

III.5.B.a.13. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

In line 6, under "Accuracy" column, add "4" to table entry "N/A" and add to the end of footnote 4, "Accuracy for DSC is evaluated by using the laboratory control standard."

CHAPTER 6

325 Hazardous Waste Treatment Units

The 325 Hazardous Waste Treatment Units (HWTUs) consist of three units within the 325 Building, i.e., the Shielded Analytical Laboratory, the Hazardous Waste Treatment Unit, and the Collection/Loadout Station Tank. The units store and treat a variety of dangerous wastes related to research and operations. This chapter sets forth the operating conditions for this TSD unit.

III.6.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all requirements set forth in the 325 Hazardous Waste Treatment Units Permit Application, as found in Attachment 36, including the amendments specified in Condition III.7.B. Enforceable portions of the application are listed below. All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A	Application
Chapter 2.0	Facility Description and General Provisions
Chapter 3.0	Waste Characteristics
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record keeping
Chapter 13.0	Other Relevant Laws
Chapter 14.0	Part B Certification
Appendix 3A	325 HWTUs Waste Analysis Plan
Appendix 4A	Engineering Drawings
Appendix 7A	Building Emergency Plan for the 325 HWTUs
Appendix 8A	Training

III.6.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.6.B.a. Only treatment specifically identified in the enforceable portions of the application and these permit conditions may be performed at this TSD unit.

III.6.B.b. Twenty months after inclusion in the Permit, this chapter shall be modified to reflect changes to waste streams shipped into and out from this unit, TSD unit operations, and the addition of a new storage tank.

III.6.B.c. Within 30 days of the issuance of this Permit, the Permittee shall submit a topographic map delineating the maximum probable flood plain, i.e., 500-year flood plain.

III.6.B.d. For all shipments of dangerous waste to or from the 325 Hazardous Waste Treatment Units, the Permittees shall comply with the applicable information in Conditions II.Q.1.h. and II.Q.2. of the Permit. For clarification, all dangerous waste must be transported in accordance with the unit specific provisions as outlined in the PNNL Operating Procedure for the 325 Building, in effect at the date of the transfer. With exception to and in addition to the packaging and transporting operations, shall be as follows:

The acceptance of all dangerous waste received at the 325
TSD Units will be dependent upon their packaging. The practice of hand carrying single walled waste containers will no longer be acceptable. Each waste container shall have secondary containment with absorbent materials packed around the contents.

III.6.B.e. The final design drawings and operable status of the proposed 325 Collection/Loadout Station Tank shall be submitted for Department approval at least 30 days before entering into a contract for installation or 120 days before the tank system begins operation.

III.6.B.f. The Permittee must conduct integrity assessments over the life of the two tank systems in this TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640. Records must be maintained in the Operating Record for this TSD unit. Within 30 days of completion of each assessment, data relating to each tank system shall be made available, upon request, to the Department for review

III.6.B.g. Within 3 months of final installation of the new tank, the Permittee shall submit to Ecology a written integrity assessment, which has been reviewed and certified by an independent, qualified registered professional engineer in accordance with WAC 173-303-810 (13)(a).

III.6.B.h. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the Air Emission Standards. The Permittee shall submit to the Department, a copy of the assessment performed to meet requirements of Subpart AA and BB within 30 days of issuance of this Permit.

III.6.B.i. In response to the request in Chapter 11.0, Section 11.7, of Attachment 37, the Permittees are granted two years to close the TSD unit. This time period is necessitated by the high levels of radioactivity in the materials that are present, particularly in the six interconnected hot cells. Removal of waste inventory from the TSD unit is an activity of closure.

III.6.B.j. Telephone number(s) for a point-of-contact at each of the three units of the HWTUs shall be provided in the Waste Analysis Plan (i.e., Unit Description) and provided to the Department within 30 days of the issuance of this Permit.

III.6.B.k. All process knowledge and analytical data that are used for waste characterization, LDR determination, and/or treatment activities at this TSD unit shall be documented and placed in the Operating Record.

III.6.B.l. Shipments of waste shall not be accepted from any onsite generator without LDR information, if applicable, accompanying each shipment. The TSD unit staff shall obtain, from the onsite generator, the information necessary to determine the waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, and identification of underlying hazardous constituents for certain characteristic waste. A member of the TSD unit staff may sign the LDR certification as a representative of the generator.

III.6.B.m. Shipments of waste shall not be accepted from any offsite generator without LDR certification, if applicable, accompanying each shipment. For waste received from offsite generators, the TSD unit shall receive the information pursuant to 40 CFR 268 regarding Land Disposal Restricted wastes. The generator must sign the LDR certification.

III.6.B.n. The quality assurance/quality control program for sampling and analysis related to this TSD unit must, at a minimum, comply with the applicable Hanford Site standard requirements and regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations.

III.6.B.o. Within 30 days of the issuance of this Permit, the Permittees shall submit the following for review and approval by the Department: for each parameter, the respective accuracy, precision, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit. These data quality requirements shall be added to the Waste Analysis Plan and become enforceable conditions of the Permit. For determining the toxicity characteristics, SW-846 Method 1311 remains the required extraction method.

III.6.B.p. For a given parameter, analytical methods are selected and may be modified as long as the applicable precision, accuracy, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit can be met or improved. (Note: the Permittee submission described in Condition III.7.B.o. will define these data quality requirements for this TSD unit.)

III.6.B.q. Chapter 2.0, Page 2-1, line 14. This paragraph describes each unit within the HWTU. Add the following text: "The Collection/Loadout Station Tank will be located in the southeast corner of the basement of the 325 Building."

III.6.B.r. Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b."

III.6.B.s. Chapter 2.0, Page 2-6, line 5. Replace "100-year flood plain" with the following: "500-year flood plain."

III.6.B.t. APP 3A, page 4-7, Section 4.5.4, lines 37, 39, 45. Change each regulatory citation to read as follows: "40 CFR 268."

III.6.B.u. APP 3A, page 4-7, line 41 - 42. Revise the text ("...as well as any waste-analyses data that support the generator's determinations.") to read as follows: "...as well as any other data, e.g., documented process knowledge and waste analysis data which support the generator's determinations."

III.6.B.v. APP 3A, page 4-8, lines 5 - 12 and lines 22 - 28: Add a fifth bulleted item to read as follows: "identification of underlying hazardous constituents"

III.6.B.w. App 3A, Page 4-8, line 31: Revise the text ("...signed by an authorized representative of 325 HWTUs...") to read as follows: "...signed by an authorized representative of the generator..."

PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES

The HSWA Permit is issued by the Agency in conjunction with this Permit. Upon delegation of the Corrective Action requirements of the HSWA by the Agency to the Department, the Permit shall be modified to incorporate the specific requirements of the HSWA Permit into this Permit. This modification shall be considered a Class 3 modification in accordance with Condition I.C.3. Until this modification is complete, compliance with the terms of the referenced provisions, shall be deemed as compliance with WAC 173-303-646.

PART V - UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE

CHAPTER 1

183-H Solar Evaporation Basin

The 183-H Solar Evaporation Basins (Basins) comprise an inactive TSD unit that is currently undergoing permanent closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.1.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan* (Plan), found in Attachment 11, including the amendments specified in Condition V.1.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4

Section I.	General Closure Requirements, Introduction (Pages I-1 through I-6)
Section I.A-1.	Minimize Need for Post-Closure Maintenance and Controls
Section I.A-2.	Minimize Post-Closure Escape of Dangerous Waste
Section I.B.	Content of Closure Plan
Section I.C.	Certification of Closure, Survey Plat, Notice in Deed, and Financial Requirements
Section II.B-1.	Preliminary Cover Design
Section III.A-1.	Inspection Plan
Section III.A-2g.	Monitoring Plan Proposed to be Conducted Until Issuance of Final Status Post-Closure Permit
Section III.A-3.	Maintenance Plan
Section III.B.	Personnel Training
Section III.C.	Procedures to Prevent Hazards
Section III.D.	Post-Closure Contact
Section III.E.	Amendment of Post-Closure Plan
Section III.F.	Certification of Completion of Post-Closure Care
Appendix A	Topographical Maps
Appendix L	Procedures for Sample Collection, Chain of Custody, and Field Measurements
Appendix M	Analytical Methods and Quality Control Procedures
Appendix N	Personnel Training for Closure Activities

V.1.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.1.B.a. Page I-1, lines 9-12. The sentence found here is deleted and replaced with the following: "Additionally, the 183-H Basins will be closed in accordance with the most current version of

all applicable environmental regulations and laws as well as the FFACO. New or modified regulations and laws may require closure activities and/or the closure plan to be modified."

V.1.B.b. Page I-108, line 46. The reference to WAC 173-303-700 is deleted.

V.1.B.c. Page I-150, line 53. The date of "October 1991" is deleted and replaced with "the first October after the effective date of this Permit."

V.1.B.d. Page III-77, line 5. The phone number (509) 376-5411 is changed to (509) 375-4647.

V.1.B.e. A copy of any Unusual Occurrence Report or Off Normal Occurrence Report issued after approval of the Plan which is directly related to Basin closure shall be provided to the Department's Basin unit manager within seven (7) days after issuance. This does not relieve the Permittees from any other reporting requirements specified in Part I or II of this Permit.

V.1.B.f. Annual closure cost estimates shall be provided to the Department as described in Section I.C.4. of this closure plan and Condition II.H.1. of this Permit.

V.1.B.g. A written notification that closure has begun and will be conducted in accordance with the Plan, including these conditions to the Plan, shall be submitted to the Department within 30 days after the Plan is approved through issuance of this Permit.

V.1.B.h. Concrete sampling and analysis activities (basin and background sampling) shall be conducted as described within the Plan and as augmented by the Decommissioning Work Plan (DWP) entitled "Concrete Sampling - 183-H Solar Evaporation Basins" (DWP-H-080-00001) as found in Attachment 12 of this Permit.

V.1.B.i. Soil sampling and analyses activities (including Phases I and II, berm and background sampling) shall be conducted as described within the Plan and as augmented by DWP-H-080-00005 entitled "Core Drill Sampling - 183-H Solar Evaporation Basins (Phase I);" WHC-SD-EN-AP-056 entitled "183-H Solar Evaporation Basins Vadose Zone Sampling Plan;" and DWP-H-026-00008 entitled "Berm Removal For 183-H Solar Evaporation Basins" as found in Attachments 13, 14, and 15, respectively, of this Permit.

V.1.B.j. The results of Basin concrete sampling (including background sampling) shall be received by the Department within 180 days of the effective date of this Permit. This submittal shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.

V.1.B.k. The results of Basin soil sampling (including Phases I and II, berm and background sampling) shall be received by the Department within 180 days of the effective date of this Permit. This submittal shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.

V.1.B.l. The Department shall be provided, for review and approval, a sampling plan and the date of sampling for any sampling event not addressed above which provides data used to support Basin closure activities at least 30 days prior to initiating actual sampling activities. This condition applies to, but is not limited to, equipment and non-concrete structural sampling and verification sampling. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.

V.1.B.m. The Permittees shall submit to the Department, for approval, a notification indicating which closure option identified in Condition II.K. of this Permit will be utilized for the Basins. This notification shall be submitted at least 60 days prior to implementation of the option and shall be accompanied by the technical and regulatory justification for choosing the closure option along with any supporting documentation including, if necessary, the result of sampling per

Conditions V.1.B.h. through V.1.B.l. This notification shall also be accompanied by a revised Figure I.B-20 of the Plan indicating a new closure schedule; however, the date of final closure shall not exceed eighteen months after the effective date of this Permit. Implementation of the option cannot commence until receipt of the Department's written approval for the closure option.

V.1.B.n. Regardless of the option chosen from Condition II.K., the Permittees and the independent, registered, professional engineer certifications of closure shall be prepared and submitted to the Department within 60 days of closure as described in Section I.C-1. of the closure plan.

V.1.B.o. If a landfill closure is chosen, the definitive design documents, construction specifications, construction drawings, and construction quality assurance plans for any engineered system (including a final cover system) shall be submitted to the Department pursuant to Condition I.C.3.

V.1.B.p. After review of the documents identified in Condition V.1.B.o., the Department may issue a unit-specific Construction Inspection Plan (CIP). If the Department chooses to issue a CIP, the Department shall be provided with all submittals and notifications required by the CIP and within the time period identified in the CIP.

V.1.B.q. If a landfill closure is chosen, notification of any of the following occurrences shall be provided to the Department within 30 days of observance until a post-closure permit is issued: settlement/sedimentation in the final cover greater than one (1) foot; actual vegetative cover canopy on the final cover less than 50 percent (50%) of a typical Hanford cover canopy six (6) months after closure; erosion of the final cover greater than six (6) inches; tampering or damage to wells or well heads. The notification must include the extent and cause of the occurrence as well as actions taken (or to be taken) to mitigate the occurrence.

V.1.B.r. If a modified closure is chosen, the Permittees shall request any reduction of landfill requirements identified in the Plan pursuant to Condition I.C.3. This request shall be based upon the quantity and concentration of contamination which will remain in place, and shall meet the requirements of Condition II.K.3.

V.1.B.s. If a modified closure or landfill closure is chosen, a survey plat shall be prepared and submitted to the Department and the Benton County Planning Department no later than 60 days after certification of closure as described in Section I.C-2. of the Plan.

V.1.B.t. If a modified closure or a landfill closure is chosen, a notice on the deed to the property shall be prepared and submitted to the Auditor of Benton County no later than 60 days after certification of closure as described in Section I.C-3. of the Plan. No later than 30 days after submitting this notice, a certification signed by the Permittees must be submitted to the Department that the notification has been recorded along with a copy of the notice itself.

V.1.B.u. If a modified closure or landfill closure is chosen, a revision to the "Final Status Post-Closure Permit Application, 183-H Solar Evaporation Basins" (June 1988) shall be submitted pursuant to Condition I.C.3. within 12 months of the Department's approval of the closure option.

V.1.B.v. Quarterly and annual ground water monitoring reports for the wells specified in the Plan shall continue to be submitted to the Department until clean closure is acknowledged by the Department in writing or as specified otherwise in a Basin post-closure permit.

CHAPTER 2

300 Area Solvent Evaporator

(Clean Closed, July 31, 1995)

The 300 Area Solvent Evaporator (300 ASE) unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in attachment 16 of this Permit.

CHAPTER 3

2727-S Nonradioactive Dangerous Waste Storage Facility

(Clean Closed, July 31, 1995)

The 2727-S Nonradioactive Dangerous Waste Storage Facility (2727-S) unit was operated as a storage unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in attachment 17 of this Permit.

CHAPTER 4

Simulated High Level Waste Slurry Treatment and Storage Unit

(Clean Closed, October 23, 1995)

The Simulated High Level Waste Slurry Treatment and Storage Unit (SHLWS) unit was operated as a storage and treatment unit for simulated slurry as a test operation in connection with the grout project. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on October 23, 1995, in accordance with the approved Closure Plan contained in attachment 19 of this Permit.

CHAPTER 5

218-E-8 Borrow Pit Demolition Site

(Clean Closed, November 28, 1995)

The 218-E-8 Borrow Pit Demolition Site (218 BPDS) unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in attachment 20 of this Permit.

CHAPTER 6

200 West Area Ash Pit Demolition Site

(Clean Closed, November 28, 1995)

The 200 West Area Ash Pit Demolition Site (200 APDS) unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in attachment 21 of this Permit.

CHAPTER 7

2101-M Pond

(Clean Closed, November 28, 1995)

The 2101-M Pond unit was operated as a disposal unit for potentially dangerous waste. This chapter set forth closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in attachment 22 of this Permit.

CHAPTER 8

216-B-3 Expansion Ponds

(Clean Closed, July 31, 1995)

The 216-B-3 Expansion Ponds unit was operated as a treatment and disposal unit for dangerous waste. This chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in attachment 23 of this Permit.

CHAPTER 9

Hanford Patrol Academy Demolition Site

(Clean Closed, November 28, 1995)

The Hanford Patrol Academy Demolition Site (HPADS) unit was operated as an open burning/open detonation unit for dangerous waste. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in attachment 24 of this Permit.

CHAPTER 10

105-DR Large Sodium Fire Facility

The Large Sodium Fire Facility (LSFF) was a research laboratory used to conduct experiments for studying the behavior of alkali metals. This facility was also used for the treatment of alkali metal dangerous wastes. This chapter sets forth the closure requirements for this TSD unit.

V.10.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the *Large Sodium Fire Facility Closure Plan* (Plan), as found in Attachment 25, including the amendments specified in Condition V.10.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A Application

Section 2.2	Unit Description and Operations
Section 2.3	Security Information
Chapter 4	Waste Characteristics
Chapter 6	Closure Strategy and Performance Standards
Chapter 7	Closure Activities
Chapter 8	Post-Closure
Appendix B	Sampling Locations
Appendix E	Quality Assurance Project Plan for Characterization and Verification Sampling at the Large Sodium Fire Facility

V.10.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.10.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit specific Conditions to the Plan, a written notification shall be submitted to the Department within 30 days after the Plan is approved.

V.10.B.b. The results of all sampling required by this Plan shall be provided to the Department. This submittal shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.10.B.c. The Department shall be provided, for review and approval, a sampling plan and the date of sampling for any sampling event not addressed in the Plan which provides data used to support LSFF cleanup activities at least 30 days prior to initiating actual sampling activities. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.10.B.d. The Permittees shall notify the Department, in writing, if the action levels cited in Section 6.1.1 of the Plan cannot be achieved. The notification shall include either a request for the Department's approval of alternative action levels or identify the interim measures to be taken in the LSFF until closure activities are performed in conjunction with the 100-DR-2 Operable Unit.

V.10.B.e. The Permittees and the independent, registered, professional engineer certifications of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure, as described in Section 7.9 of the Plan. The Permittees shall continue to address

LSFF as a dangerous waste management unit until receipt of the Department's written notification that LSFF is accepted as closed.

V.10.B.f. The Permittees shall complete LSFF closure activities within 240 days after the effective date of Revision 2 of this Permit.

CHAPTER 11

304 Concretion Facility

(Clean Closed, January 21, 1996)

The 304 Concretion Facility (304 Facility) was used for the treatment of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/Zircaloy-2 chips and Zircaloy-2 chips and fines.

This Unit has been Clean Closed on January 21, 1996, in accordance with the approved Closure Plan contained in attachment 26 of this Permit.

CHAPTER 12

4843 Alkali Metal Storage Facility Closure Plan

(Clean Closed, April 14, 1997)

The 4843 Alkali Metal Storage Facility (4843 AMSF) is an inactive storage facility which is currently undergoing permanent closure activities. This TSD unit was operated as a storage unit for dangerous waste and alkali metals. This chapter sets forth the closure requirements for this TSD unit.

V.12.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *4843 Alkali Metal Storage Facility Closure Plan* (Plan), as found in Attachment 29, including the amendments specified in Condition V.12.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 2

Section 1.1	Executive Summary
Section 2.2	Unit Description and Operations
Section 2.3	Security
Section 3.0	Process Information
Section 4.0	Waste Characteristics
Section 6.0	Closure Strategy and Performance Standards
Section 7.0	Closure Activities
Section 8.0	Post-Closure
Section 9.0	References
Appendix G	Quality Assurance Project Plan

V.12.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.12.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit-specific Conditions to the Plan, a written notification shall be submitted to the Department within 30 days after the Plan is approved.

V.12.B.b. The Permittees shall notify the Department, in writing, if at any time it is determined the clean closure levels specified in this plan are exceeded.

V.12.B.c. The Permittees and the independent, registered, professional engineer certification of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure, as described in the Plan. The Permittees shall continue to address the unit as a dangerous waste management unit until receipt of the Department's written notification stating the unit is accepted as clean closed.

V.12.B.d. The Permittees shall complete 4843 AMSF closure activities 180 days after the effective date of Revision 3 to this Permit.

CHAPTER 13

3718-F Alkali Metal Treatment and Storage Facility Closure Plan

The 3718-F Alkali Metal Treatment and Storage Facility was operated to treat and store alkali metal waste from the Fast Flux Test Facility and from various laboratories that used alkali metals for experiments. Contaminated equipment was treated using water, methanol, isopropyl alcohol, or 2-butoxy ethanol. Bulk waste was treated by burning to eliminate the ignitability and reactive characteristics. After the burn treatment, the waste was neutralized with acid to a pH between 2 and 12.5.

V.13.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *3718-F Alkali Metal Treatment and Storage Facility Closure Plan* (Plan), found in Attachment 30, including the amendments specified in Condition V.13.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

The operation of this facility resulted in the release of material, which may classify as dangerous waste and/or dangerous constituents, to the soil surrounding the building and concrete pad. A closure plan must address the full extent of operation and releases to the environment. Therefore, the Department requires the owner/operator to conduct soil sampling to determine the extent of the releases. The 3718-F Alkali Metal Treatment and Storage Facility can not be released from interim status until it can be demonstrated that the unit has been closed in accordance with closure requirements of WAC 173-303, or corrective action has been completed.

If pre-existing contamination remains at the unit in concentrations above appropriate MTCA cleanup levels, the unit is subject to additional remediation under RCRA corrective action, MTCA, or CERCLA, as appropriate.

Part A, Form 3, Permit Application, Revision 3

Section 1.2	Closure Strategy
Chapter 2.0	Facility Description and Location Information
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Closure Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Post-Closure Plan

V.13.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.13.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit-specific Conditions to the Plan, a written notification shall be submitted to the Department within 30 days after the Plan is approved.

V.13.B.b. The Department shall be provided, for review and approval, a soil sampling and analysis plan at least 30 days prior to initiating actual sampling. Such a plan shall include a schedule for conducting sampling events. The analytical results of the sampling event will be used to determine if corrective action will be required to close the 3718-F Alkali Metal Treatment and Storage Facility.

V.13.B.c. The Department shall be provided a diagram of the 3718-F Alkali Metal Treatment and Storage Facility unit boundary to be closed, addressing the maximum extent of operation.

The diagram should incorporate the fenced area surrounding the building indicating which areas intentionally, or unintentionally, received waste. This diagram is to be submitted with the sampling and analysis plan required by Condition V.13.B.b.

V.13.B.d. The soil samples shall be analyzed for all dangerous constituents documented to have been potentially spilled or released at the 3718-F Alkali Metal Treatment and Storage Facility during its operating life. These analyses shall be performed in accordance with WAC 173-303-110 including the quality assurance and quality control requirements delineated in SW-846.

V.13.B.e. The results of all sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary with conclusions.

V.13.B.f. The Permittees and the independent, registered, professional engineer shall prepare and submit the certification of closure to the Department by registered mail within 60 days of closure.

V.13.B.g. The Permittees shall continue to address the 3718-F Alkali Metal Treatment and Storage Facility as a dangerous waste management unit until receipt of the Department's written notification that the closure certification is accepted as clean closed.

V.13.B.h. The Permittees shall complete the 3718-F Alkali Metal Treatment and Storage Facility closure activities within 180 days after the effective date of this Permit. This schedule may be extended at Ecology's discretion based on the results of sampling conducted at the unit.

V.13.B.i. Any solid waste remaining at the unit or generated during sampling and/or decontamination activities shall be designated and managed accordingly. The Department shall be informed in writing of the final disposition of the waste.

V.13.B.j. A written notification shall be submitted to the Department regarding the final disposition of equipment associated with or subject to decontamination, designation, removal, disposal, recycling or reuse at the 3718-F Alkali Metal Treatment and Storage Facility.

V.13.B.k. The Permittees shall notify the Department, in writing, if at any time it is determined the clean closure levels specified in this Plan are exceeded.

V.13.B.l. The Department will consider removal and decontamination complete when the concentrations of dangerous waste, dangerous waste constituents, and dangerous waste residues, which originated from the 3718-F Alkali Metal Treatment and Storage Facility, throughout the areas affected by releases from this unit do not exceed numeric cleanup levels for soils, groundwater, surface water, and air, determined using residential exposure assumptions according to the MTCA 173-340, method A or B.

V.13.B.m. A Post-Closure permit will be required if dangerous wastes constituents, residues, or decomposition products are left in place at concentrations above the numeric cleanup levels determined using residential exposure assumptions under MTCA method A or B.

V.13.C <u>CHANGES TO TEXT OF REVISION 2 OF THE CLOSURE PLAN (CHAPTER 13)</u>

V.13.C.a. Page 6-2, line 8. Disregard first bullet. The bullet inaccurately states radioactive waste was not managed at the unit. The 3718-F Alkali Metal Treatment and Storage Facility did manage radioactive sodium according to *DOE-RL 1992a, 3718-F Alkali Metal Treatment and Storage Facility Closure Plan, DOE-RL-91-35, Rev. 1*, U.S. Department of Energy, Richland Field Office, Richland, Washington and the *300-FF-2 Operable Unit Technical Baseline Report, BHI-00012, Rev. 00, Bechtel Hanford, Inc., Richland, Washington.*

CHAPTER 14

303-K Storage Facility

The 303-K Storage Facility (303-K) was used primarily for storage, and some treatment, of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/zircalloy-2 chips which were concreted at the 304 Concretion Facility, and other process wastes.

V.14.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the *303-K Storage Facility Closure Plan* (Plan), as found in Attachment 32, including the amendments specified in Condition V.14.B. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 3

Section 2.1	Description of the 303-K Storage Facility
Section 2.2	Security
Chapter 4.0	Waste Characteristics
Chapter 6.0	Closure Strategy and Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Post-Closure
Appendix B	Random Sampling Locations
Appendix E	Personnel Training
Appendix F	Quality Assurance Project Plan for Sampling and Analysis for the 304 Concretion Facility Closure Activities

V.14.B AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.14.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan, including these unit-specific Conditions to the Plan, a written notification shall be submitted to the Department within 30 days after the Plan is approved.

V.14.B.b. The results of all sampling required by the Plan shall be provided to the Department. This submittal shall include raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.14.B.c. The Department shall be provided, for review and approval, a sampling and analysis plan and date of sampling for any sampling event not addressed in the Plan, which provides data used to support the 303-K cleanup activities at least 30 days prior to initiating actual sampling activities. The results of this sampling shall be submitted to the Department. These submittals shall include the raw analytical data, a summary of analytical results, a data validation package, and a narrative summary of conclusions.

V.14.B.d. The Permittees shall notify the Department, in writing, if action levels cited in Section 6.1 of the Plan are exceeded. The notification shall include a request for Ecology's approval of alternative action levels or identify interim measures to be taken in the 303-K until closure activities are performed in conjunction with the 300-FF-3 Operable Unit. The interim measures must be approved by the Department.

V.14.B.e. The Permittees' and the independent, registered, professional engineer's certifications of closure shall be prepared and submitted to the Department by registered mail within 60 days

of closure as described in Section 7.8 of the Plan. The Permittees shall continue to address the 303-K as a dangerous waste management unit until receipt of the department's written notification that the 303-K is accepted as clean closed.

V.14.B.f. The allowed time for closure is hereby extended in accordance with WAC 173-303-610(4)(b)(i). The Permittees shall submit a certification of closure for 303-K no later than September 30, 1998.

V.14.B.g. Compliance with the approved Sampling and Analysis Plan.

The Permittees shall comply with all the requirements set forth in the "303-K Storage Facility Sampling and Analysis Plan" (as found in Attachment 39) and the "Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan" (as found in Attachment 40) including the amendments specified below. All subsections, figures, and tables included in the Sampling and Analysis Plan also are enforceable unless otherwise stated.

V. 14.B.g.1. Section 5.1 Cleanup Performance Standards for Soils.

Insert the following after line 25 on page 5: "Using the Ecology publication, Model Toxics Control Act Cleanup Levels and Risk Calculations (CLARC II) Update, February 1996 (Publication #94-145, as updated January 1996), cleanup levels shall be identified for all constituents of concern. In addition, when a MTCA Method B value does not exist for a constituent, the cleanup level shall be obtained from the appropriate Method A table in WAC 173-340."

Delete Table 1 on page 6.

V.14.B.g.2. Section 7.4 Support for Ecology during Sampling.

Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected, if requested, for Ecology. If split samples for Ecology are collected as part of this sampling effort, then the...") and replace with the following: "Split samples of concrete and soil will be collected for Ecology from each sampling location. The..."

V.14.B.g.3. Field analytical quality control will include analytical duplicate(s) and verification of the method detection limit. Each field screening analytical duplicate sample will be collected from the same volume of sample material as the original field screening analytical sample. The frequency for these duplicates will be one per 20 samples or one per day of analysis, whichever is more stringent. The procedure used for the verification of the method detection limit is subject to approval by Ecology.

V.14.B.g.4. The laboratory quality control will be performed as described in the respective method, but will include the following: The frequency for analytical quality control will be one in 20 samples or one per analytical batch, whichever is more stringent, for duplicate and spike (or matrix spike) samples. Samples from this project must be chosen for the duplicate and spike (or matrix spike) samples. At least one method blank and one quality control check sample will be performed for each analytical batch.

V.14.B.g.5. Samples shall be placed immediately upon ice or refrigerated to 4± 2 degrees Celsius after sampling and held at that temperature prior to and during shipping to the analytical laboratory.

V.14.B.g.6. Loss of any sample due to any cause may require resampling and/or reanalysis, at the discretion of the Department.

V.14.B.g.7 The results of all analyses required by the Sampling and Analysis Plan as revised by these conditions shall be provided to the Department as stated in V.14.B.c. In addition to the items listed, these submittals shall include calibration and quality control data. A data evaluation report shall be submitted to the Department comparing the analytical results to the cleanup levels for the 303-K, derived as described in Condition V.14.B.g.1. For data to be useable for this comparison, the method quantification limit for the constituent must be equal to or less than the cleanup level, or the method detection limit must be at least ten times below the cleanup level, and the data package must be complete.

V.14.B.h. If any analytical result, except for arsenic and beryllium, for any sample location specified in the Sampling and Analysis Plan exceeds the MTCA Method B cleanup level, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit. If arsenic or beryllium exceed the established Hanford Sitewide Background values, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit.

PART VI - UNIT-SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE

CHAPTER 1

300 Area Process Trenches

The 300 Area Process Trenches were operated to receive effluent discharges of dangerous mixed waste from fuel fabrication laboratories in the 300 Area. This chapter sets forth the modified closure requirements.

VI.1.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *300 Area Modified Closure Plan* (Plan), as found in Attachment 31, including amendments specified in Condition VI.1.B. Enforceable portions of the plan are listed below. All subsections, figures, and tables included in these portions are also enforceable unless otherwise stated. The Permittees shall also comply with all the requirements in the 300-FF-1 and 300-FF-5 Record of Decision and Addendum and the groundwater monitoring plan (WHC-SD-EN-AP-185, Rev. 0A).

Part A, Form 3, Permit Application, Revision 4

Section ADD-1	Addendum, Introduction
Section 1.3.	Content of the Modified Closure/Post-Closure Plan
Chapter 4.0	Waste Characteristics. Summary of non-radionuclide data. Data is located in the *Expedited Response Action Assessment for the 316-5 Process Trenches* (DOE/RL-92-32, Rev. 0)
Section 6.2.1.	Minimize Need for Post-Closure Maintenance and Controls
Section 6.2.2.	Minimize Post-Closure Escape of Dangerous Waste
Section 7.9.	Amendment to Closure Plan
Section 7.10.	Certification of Closure, Survey Plat, Notice in Deed, and Financial Requirements
Section 8.2.	Inspection Plan
Section 8.4.	Maintenance Plan
Section 8.5.	Personnel Training
Appendix 2A	Photographs
Appendix 5A	Groundwater References
Appendix 5B	RCRA, Final Status Compliance Monitoring (WHC-SD-EN-AP-185, Rev. 0A)
Appendix 7A	Sampling and Analysis Plan
Appendix 7B	Sampling Data and Evaluation Package for the 300 Area Process Trenches
Appendix 7C	Training Course Descriptions
Appendix 7D	Summary of Pre- and Post- Expedited Response Action (ERA) Sampling Data. Radionuclide data.

VI.1.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

VI.1.B.a. Page 1-1, line 34 will reference section II.K.3. of the Hanford Facility Wide Permit, which covers modified closures.

VI.1.B.b. Pursuant to condition II.K.7. of the Hanford Facility Wide Permit, the 300 Area Process Trenches (APT) closure shall be a Modified Closure in coordination with the Record of Decision (ROD) for 300-FF-1 and 300-FF-5. Sections of CERCLA documents (examples include, but are not limited to, Remedial Design/Remedial Action CERCLA work plan, the Operation and Monitoring Work Plan, etc.) which satisfy requirements and conditions of this Modified Closure Plan will be reviewed and approved by the Department.

VI.1.B.c. The Sampling and Analysis Plan, Appendix 7A (Verification Sampling), will be submitted to the Department for approval. This will occur prior to all remedial actions within the 300 APT.

VI.1.B.d. Page 1-7, lines 9-13. This portion of the paragraph will be replaced by the following: "Disposal of TSD unit soil into the Environmental Restoration Disposal Facility (ERDF) (or a comparable RCRA Subtitle C Landfill) within the boundaries of the Hanford Facility is allowed through an approved, contained in demonstration, based on MTCA B cleanup levels (WAC-173-340) for the contamination carrying the F and U codes, and with TCLP data for the characteristic waste."

VI.1.B.e. Page 6-1, lines 8-10. This portion of the paragraph will be replaced by the following: "Based on data in addition to ERA data (DOE/RL-92-32), remediation will occur to meet all Applicable Relevant and Appropriate Requirements (ARARs) within the trenches. This will include removal of the spoils pile for chemical contamination above MTCA C Industrial cleanup values. It has been concluded that when uranium is removed to the CERCLA cleanup standard of 350 piC/g, the Chemical Contaminants of Concern (COCs) will likely be removed to below the cleanup standard, as well. Verification samples will be collected for both chemicals and radioisotopes, as directed in the remedial action sampling and analysis plan, to determine whether performance standards for the modified closure have been met."

VI.1.B.f. Page 6-1, line 11. The sentence here is deleted and replaced with the following: "When SD soils are remediated, the cleanup levels achieved for RCRA constituents could qualify the unit for clean closure of the soil."

VI.1.B.g. Page 6-1, lines 22-27. This portion of the paragraph will be removed.

VI.1.B.h. Page 6-2, line 23-27. These sentences will be deleted and replaced with the following: "Final closure specifications are known and will be coordinated with the CERCLA cleanup activities."

VI.1.B.i. As stipulated through the RCRA Final Status Compliance Monitoring Plan (i.e., WHC-SD-EN-AP-185) Appendix IX, sampling shall not be required unless Post-Closure monitoring results indicate a need to do so.

VI.1.B.j. Page 6-3, line 12-24. Presenting the option for Modified Closure is redundant. This paragraph will be deleted.

VI.1.B.k. Page 6-4, lines 26-33. Presenting the Landfill Closure Option is not supported by sufficient technical data. This paragraph will be deleted.

VI.1.B.l.	Page 6-6, lines 14-15. This paragraph will be replaced with the following: "RCRA closure verification will occur as part of the spoils pile removal, and will be in coordination with CERCLA remedial activities."
VI.1.B.m.	Page 6-6, lines 17-19. This paragraph will be replaced with the following: "The analytical results of TSD screening/verification sampling will be reviewed by the Department. This review will be allowed at any point during the process (i.e., raw data, as well as, completed data summaries)."
VI.1.B.n.	Page 7-1, lines 5-10. This portion of the paragraph will be replaced by the following: "These closure activities will reflect the closure specifications stipulated in the Modified Closure/Post-Closure Plan, Hanford Facility Wide Permit (#WA7890008967), and the CERCLA ROD for 300-FF-1. Groundwater remediation will be addressed as part of the remedial actions for 3-FF-5."
VI.1.B.o.	Page 7-6, lines 20-22. These sentences will be replaced by the following: "Sampling will be appropriate to the applicable remedial alternatives under consideration for remediation of both CERCLA and RCRA Constituents."
VI.1.B.p.	Page 8-3, line 6. Security Control Devices (SCD) will be developed pursuant to Condition II.K.3.a. of the Permit. Design will occur during the CERCLA RD/RA process. Implementation of SCD will occur through the Department approval of pertinent sections of the CERCLA Operations and Maintenance Plan.
VI.1.B.q.	Page 8-3, line 20. Well condition will be assessed pursuant to Condition II.F. of the Permit.
VI.1.B.r	Page 8-5, Section 8.5. This section will reference Section II.C. of the Permit for additional training requirements.
VI.1.B.s.	Pursuant to CERCLA, removal of the spoils pile within the trenches will begin 15 months after the signature of the 300-FF-1/300-FF-5 ROD.

CHAPTER 2

183-H Solar Evaporation Basin

The 183-H Solar Evaporation Basins (Basins) comprise an inactive Treatment Storage and Disposal (TSD) unit that is currently undergoing closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit. The following enforceable portions of the *183-H Solar Evaporation Basins Postclosure Plan*, Rev. 0 (Plan), found in Attachment 37 supersede the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 which was previously listed in Part V, Chapter 1.

VI. 2. A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The requirements set forth in the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 have been superseded by the *183-H Solar Evaporation Basins Postclosure Plan*, Rev. 0 (Plan), found in Attachment 34. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4

Attachment 37, 183-H Solar Evaporation Basins Postclosure Plan, Rev. 0

Section 2.1	Modified Postclosure Institutional Controls
Section 2.2	Modified Postclosure Periodic Assessments
Section 3.0	Groundwater Monitoring During Postclosure
Section 3.1	WAC 173-303-645(11)(d) Monitoring Requirements
Section 3.1.1	WAC 173-303-645(3) Groundwater Protection Standard
Section 3.1.2	WAC 173-303-645(8) General Groundwater Monitoring Requirements
Section 3.2	RCRA Corrective Action Groundwater Monitoring Schedule
Section 3.3	Groundwater Monitoring under CERCLA
Section 3.3.1	100-HR-3 Remedial Investigation Monitoring
Section 3.3.2	100-HR-3 Interim Remedial Measure Monitoring
Section 3.4	Inspection, Maintenance, and Replacement of Wells
Section 4.0	Corrective Action Plan
Section 4.1	Soil Column Corrective Action
Section 4.2	Groundwater Corrective Action
Section 4.3	Remediation Expectations During the IRM
Section 5.0	Personnel Training During Postclosure
Section 6.0	Security
Section 7.0	Closure Contact
Section 8.0	Certification of Postclosure

VI. 2. B. Amendments to the Approved Postclosure Plan

VI. 2. B. a. The permitee will review the modified closure option in five years from the date of the Permit. The purpose of the review will be to determine if this TSD can be clean closed.

VI. 2. B. b. Groundwater Monitoring Plan for the 183-H Solar Evaporation Basins, PNNL-11573. The permitees shall comply with the above referenced document which details the final status groundwater monitoring program for the 183-H Solar Evaporation Basins.

HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
Updated January 28, 1998

PART I									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
I.A.	Effect Of Permit								
I.A.1.a		*	*	*	*	*	*	*	
I.A.1.b		*	*	*	*	*	*	*	
I.A.2		*	*		*	*	*	*	
I.A.3	Coord. w/FFACO		*		*	*	*	*	
I.B.	Personal & Property Rights		*		*	*	*	*	
I.C.	Permit Actions								
I.C.1.	Modification, Revocation, Reissuance, or Termination		*		*	*	*	*	
I.C.2.	Filing of a Request		*		*	*	*	*	
I.C.3.	Modifications		*		*	*	*	*	
I.D.	Severability								
I.D.1.	Effect of Invalidation		*		*	*	*	*	
I.D.2.	Final Resolution		*		*	*	*	*	
I.E.	Duties & Requirements								
I.E.1.	Duty to Comply		*		*	*	*	*	
I.E.2.	Compliance Not Constituting Defense		*		*	*	*	*	
I.E.3.	Duty to Reapply		*		*	*	*	*	
I.E.4.	Permit Expiration & Continuation		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers

HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
I.E.5.	Need to Halt or Reduce Activity Not a Defense		*		*	*	*	*	
I.E.6.	Duty to Mitigate		*		*	*	*	*	
I.E.7.	Proper Operation & Maintenance		*			*	*	*	
I.E.8.	Duty to Provide Information		*		*	*	*	*	
I.E.9	Inspection & Entry		*		*	*	*	*	
I.E.10	Monitoring & Records								
I.E.10.a			*		*	*	*	*	
I.E.10.b			*		*	*	*	*	
I.E.10.c			*		*	*	*	*	
I.E.10.d			*		*	*	*	*	
I.E.10.e			*		*	*	*	*	
I.E.11.	Reporting Planned Changes		*			*	*	*	
I.E.12.	Certification of Construction or Modification		*				*		
I.E.13.	Anticipated Noncompliance		*		*	*	*	*	
I.E.14.	Transfer of Permits		*			*	*	*	
I.E.15.	Immediate Reporting								
I.E.15.a			*		*	*	*	*	
I.E.15.b			*		*	*	*	*	
I.E.15.c			*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers

HANFORD FACILITY WIDE PERMIT (REV. 4)
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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
I.E.15.d			*		*	*	*	*	
I.E.15.e			*		*	*	*	*	
I.E.16	Written Reporting		*		*	*	*	*	
I.E.17	Manifest Discrepancy Report								
I.E.17.a			*			*	*	*	
I.E.17.b			*		*	*	*	*	
I.E.18.	Unmanifested Waste Report		*			*	*	*	
I.E.19.	Other Noncompliance		*		*	*	*	*	
I.E.20.	Other Information		*		*	*	*	*	
I.E.21.	Reports, Notifications & Submissions		*		*	*	*	*	
I.E.22.	Annual Report		*		*	*	*	*	
I.F.	Signatory Requirement		*		*	*	*	*	
I.G.	Confidential Information		*		*	*	*	*	
I.H.	Documents To Be Maintained At Facility Site		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
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PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.A.	Facility Contingency Plan								
II.A.1.					*	*	*	*	For Category D, II.A. Conditions only apply to releases of hazardous substances which threaten human health or the environment.
II.A.2.					*	*	*	*	
II.A.3.					*	*	*	*	
II.A.4.					*	*		*	
II.A.5.					*	*	*	*	
II.B.	Preparedness & Prevention								
II.B.1.						*	*		
II.B.2.						*	*		
II.B.3.						*	*		
II.B.4.						*	*		
II.C.	Personnel Training								
II.C.1.						*	*	*	
II.C.2.					*	*	*	*	
II.C.3.						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers

HANFORD FACILITY WIDE PERMIT (REV. 4)
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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.C.4.					*	*	*	*	For Category D, Condition II.C.4. will not apply to unrestricted (publicly accessible) areas
II.D.	Waste Analysis								
II.D.1.						*	*	*	
II.D.2.						*	*	*	
II.D.3.						*	*	*	
II.D.4.					*				
II.E.	QA/QC								
II.E.1.						*	*	*	
II.E.2.						*	*	*	
II.E.3.						*	*	*	
II.E.4.						*	*	*	
II.E.5.						*	*	*	
II.F.	GW and Vadose Zone Monitoring					*	*	*	
II.F.1.	Purgewater Management					*	*	*	
II.F.2.	Well Remed. & Abandonment								
II.F.2.a						*	*	*	
II.F.2.b						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.F.2.c						*	*	*	
II.F.2.d						*	*	*	
II.F.3	Well Construction					*	*	*	
II.G.	Siting Criteria				*		*		For Category D, Condition II.G. only applies if a new TSD unit is to be sited.
II.H.	Record Keeping & Rerporting								
II.H.1.	Cost Estimate for Facility Closure					*	*	*	
II.H.2.	Cost Est. for Postclosure Monitoring & Maintenance					*	*	*	
II.H.3.						*	*	*	
II.I.	Facility Operating Record								
II.I.1.		*	*		*	*	*	*	For Category D, II.I. Conditions only apply to activities subject to this Permit as defined by this matrix. For Category E, Condition applicability to be specified in Part V. Condition II.I. only applies to existing records and records prepared after the date of Permit issuance.
II.I.1.a		*	*		*	*	*	*	
II.I.1.b							*	*	
II.I.1.c					*	*	*	*	

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A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.I.1.d						*	*	*	
II.I.1.e			*		*				
II.I.1.f					*	*	*	*	
II.I.1.g						*	*	*	
II.I.1.h	Condition Reserved								
II.I.1.i						*	*	*	
II.I.1.j						*	*	*	
II.I.1.k					*	*	*	*	
II.I.1.l	Condition Reserved								
II.I.1.m						*	*	*	
II.I.1.n					*	*	*	*	
II.I.1.o	Condition Reserved								
II.I.1.p			*		*	*	*	*	
II.I.1.q			*		*	*	*	*	
II.I.1.r					*	*	*	*	
II.I.1.s					*	*	*	*	
II.I.1.t					*	*	*	*	
II.I.2.		*	*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.J.	Facility Closure								
II.J.1.						*	*	*	
II.J.2.						*	*	*	
II.J.3.						*	*	*	
II.J.4.						*	*	*	
II.K.	Soil/GW Closure Performance Standards								
II.K.1.						*	*	*	
II.K.2.						*	*	*	
II.K.3.						*	*	*	
II.K.4.						*	*	*	
II.K.5.						*	*	*	
II.K.6.						*	*	*	
II.K.7.						*	*	*	
II.L.	Design & Operation of Facility								
II.L.1.	Proper Design & Construction					*	*	*	Condition II.L.2. only applies to Category E if it is a landfill closure.
II.L.2.	Design Changes, Nonconformance, & As-Built Drawings					*	*	*	Condition II.L.2 applies to Categories E & G only if it is a landfill closure.

CATEGORIES ARE DEFINED AS FOLLOWS:

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C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
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Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.L.3.	Facility Compliance				*	*	*	*	
II.M.	Security					*	*	*	
II.N.	Receipt of Dang. Wastes Generated Off-Site								
II.N.1.	Receipt of Off-Site Waste						*		
II.N.2.	Waste From Sources Outside the U.S.						*		
II.N.3.	Notice to Generator						*		
II.O.	General Inspection Requirements								
II.O.1.					*				
II.O.2.					*				
II.O.3.					*				
II.P.	Manifest System								
II.P.1.						*	*	*	
II.P.2.						*	*	*	
II.Q.	On-Site Transportation								
II.Q.1.					*	*	*	*	
II.Q.2.					*	*	*	*	
II.R.	Equivalent Materials								

CATEGORIES ARE DEFINED AS FOLLOWS:

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
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Updated January 28. 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.R.1.						*	*	*	
II.R.2.						*	*	*	
II.R.3.						*	*	*	
II.S.	Land Disposal Restrictions				*	*	*	*	
II.T.	Access & Information				*	*	*	*	
II.U.	Mapping of Underground Piping								
II.U.1.				*		*	*	*	
II.U.2.				*		*	*	*	
II.U.3.				*		*	*	*	
II.U.4.				*		*	*	*	
II.V.	Marking of Underground Piping			*		*	*	*	
II.W.	Other Permits and/or Approvals								
II.W.1.						*	*	*	
II.W.2.						*	*	*	
II.W.3.						*	*	*	
II.X.	Schedule Extensions								
II.X.1.				*	*	*	*	*	Condition II.X. only applies to Category C if activities are subject to Conditions II.U. and II.V.

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
II.X.2.				*	*	*	*	*	Condition II.X. only applies to Category D if activities are subject to this Permit as defined by this matrix.
PARTS III, IV, and V									
III.	Unit Specific Conditions for Final Status Operations								
III.1.A.	616 NRDWSF Compliance with Approved Permit Application						*		
III.1.B.	Amendments to the Approved Permit Application						*		
III.2.A.	**305-B** Compliance with Approved Permit Application						*		
III.2.B.	Amendments to the Approved Permit Application						*		
III.3.A	**PUREX TUNNELS** Compliance with Approved Permit Application						*		
III.3.B	Amendments to the Approved Permit Application						*		
IV.	Corrective Actions for Past Practice	*	*		*				
V.	Unit Specific Conditions for Units Undergoing Closure								
V.1.A.	**183-H** Basins Compliance with Approved Closure Plan					*			
V.1.B.	Amendments to the Approved Closure Plan					*			
V.2.A.	**300 ASE** Compliance with Approved Closure Plan					*			

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F. TSD Operating Units (in Part III)
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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
V.2.B.	Amendments to the Approved Closure Plan					*			
V.3.A.	**2727-S** Compliance with Approved Closure Plan					*			
V.3.B.	Amendments to the Approved Closure Plan					*			
V.4.A.	**SHLWS** Compliance with Approved Closure Plan					*			
V.4.B.	Amendments to the Approved Closure Plan					*			
V.5.A.	**218 BPDS** Compliance with Approved Closure Plan					*			
V.5.B.	Amendments to the Approved Closure Plan					*			
V.6.A.	**200 APDS** Compliance with Approved Closure Plan					*			
V.6.B.	Amendments to the Approved Closure Plan					*			
V.7.A.	**2101-M POND** Compliance with Approve Closure Plan					*			
V.7.B.	Amendments to the Approved Closure Plan					*			
V.8.A.	**B PONDS** Compliance with Approved Closure Plan					*			
V.8.B.	Amendments to the Approved Closure Plan					*			

CATEGORIES ARE DEFINED AS FOLLOWS:

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E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
V.9.A	**Hanford Patrol Academy Demo** Compliance with Approved Closure Plan					*			
V.9.B	Amendments to the Approved Closure Plan					*			
V.10.A	**105-DR Facility** Compliance with Approved Closure Plan					*			
V.10.B	Amendments to the Approved Closure Plan					*			
V.11.A	**304 CONCRETION FACILITY** COMPLIANCE WITH APPROVED CLOSURE PLAN					*			
V.11.B	Amendments to the Approved Closure Plan					*			
V.12.A	**4843 ALKALI Metal Storage Facility** Compliance with Approved Closure Plan					*			
V.12.B	Amendments to the Approved Closure Plan					*			
V.13.A	**3718-F ALKALI Metal Treatment and Storage Facility** Compliance with Approved Closure Plan					*			
V.13.B	Amendments to the Approved Closure Plan					*			

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C. Interim Status TSD Units
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E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

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HANFORD FACILITY WIDE PERMIT (REV. 4)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX

Updated January 28, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B[1]	C[2]	D[3]	E	F	G	
V.14.A	**303-K Storage Facility** Compliance with Approved Closure Plan					*			
V.14.B	Amendments to the Approved Closure Plan					*			
VI	**Unit Specific Conditions for Units Undergoing Post Closure/Modified Closure**								
VI.1.A	**300 Area Process Trenches** Compliance with Approved Closure Plan							*	
VI.1.B	Amendments to the Approved Closure Plan							*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers

RESPONSIVENESS SUMMARY

MODIFICATION C 1997

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMIT

FOR THE TREATMENT, STORAGE, AND DISPOSAL OF DANGEROUS WASTE

AT THE HANFORD FACILITY

January 1998

Introduction

47634

This responsive summary is a result of written comments received by the Washington State Department of Ecology (referred to hereafter as the Department) on the *Proposed Modification to the Permit for the Treatment, Storage, and Disposal* (Permit), which was available for public review and comment from September 2, 1997 to October 16, 1997. This Permit sets the conditions for the management of dangerous waste at the U.S. Department of Energy's Hanford Facility. This modification was planned to:

- Include four new operating Dangerous Waste Treatment, Storage, and Disposal Units in the Permit through the introduction of four new chapters to Part III of the Permit, namely;

  - Part III - Chapter 4: Low-Level Burial Grounds
  - Part III - Chapter5: 242-A Evaporator
  - Part III - Chapter6: Liquid Effluent Treatment Complex
  - Part III - Chapter7: 325 Hazardous Waste Treatment Unit

- Include a new Modified Closure in Part VI of the Permit:

  - Part VI - Chapter 2: 183-H Evaporation Basins

- Modify Part V – Chapter 14, 303-K Unit Closure Plan

This summery is intended to address all the comments received and show how those comments were evaluated. The Department received a total of twenty-five comments on this modification to the Permit, all from the U. S. Department of Energy (USDOE), letter dated October 16, 1997. Since the Department's responses to these comments will play a major role in guiding the permittees throughout the implementation of the Permit general conditions and the unit specific conditions, the Department has compiled these responses to be clear and consistent with the Permit conditions and the intent of the relative regulatory requirements. Also, this responsiveness summary will be made part of the Hanford Facility Administrative Record for future reference.

The Department has also made some administrative changes in the Permit to reflect and accommodate the inclusion of the new chapters in Parts III and VI. These changes (page changes, references, and similar others) are administrative in nature and no further reference to them is made.

In particular reference to the comments and conditions related to the Low-Level Burial Grounds Unit (LLBG), the Department has made the decision to make changes to the conditions reviewed by the public during the Public Involvement Process. When finalized, these revised conditions may have major changes made to them which makes it necessary to take them out for public review and comment a second time prior to any final decision. Hence, our responses to the comments related to this unit have been made with the understanding that all the LLBG permit conditions will not be added to the Permit until they go out again for public review.

Comments on the proposed conditions for the Low Level Burial Grounds Unit

1. General Comment: The provisions of Chapter 4 of the Permit apply only to the trenches in the LLBG that are used specifically for the disposal of dangerous and/or mixed waste.

Ecology response to comment: The reference to Chapter 4 in the comment is not well defined. It is assumed that the comment is referencing Chapter 4 of Part III of the Hanford site-wide RCRA permit. Ecology agrees that Chapter 4 of Part III of the Hanford RCRA permit currently only applies to the trenches in the LLBG that are specifically for the disposal of dangerous and/or mixed waste. Provisions to deal with the LLBG Solid Waste Management Units (SWMUs) will be incorporated into a Corrective Action under Part IV of the Hanford RCRA permit at the time of Closure of the LLBG SWMUs.

Actions to be taken: None

2. Condition III.4.A COMPLIANCE WITH APPROVED PERMIT APPLICATION.

Requested Action: Delete "The Permittees shall comply with all the requirements set forth in the *Low Level Burial Grounds*, Rev. 1, as found in Attachment 34, including the amendments specified in Condition III.4.B. Enforceable portions of the application are listed below. All subsections, figures, and tables included in these portion are also enforceable unless otherwise stated:" and replace with "The permittees shall comply with all the requirements set forth in the Low Level Burial Grounds, Rev. 1, as found in Attachment 34, including the amendments specified in Condition III.4.B. By approving this permit application, Ecology hereby grants an exemption from the dangerous waste landfill liner/leachate collection system requirements for disposal of reactor compartments in trench 94 of the 218-E-12B Burial Ground, as requested in Appendix 4D below. Enforceable portions of the permit application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless otherwise stated:"

Comment Justification: This language clearly reflects Ecology's approval of the request for exemption from landfill liner/leachate collection system requirements for the disposal of reactor compartments in Trench 94 of the 218-E-12B Burial Ground.

Ecology response to comment on proposed Condition III.4.A: Ecology agrees to include the reactor compartment exemption in condition III.4X[1].A as requested. Condition III.4X.A will read as follows: "The permittees shall comply with all the requirements set forth in the Low Level Burial Grounds, Rev. 1, as found in Attachment 4x[2], including the amendments specified in Condition III.4X.B. By approving this permit application, Ecology hereby grants an exemption from the dangerous waste landfill liner/leachate collection system requirements for disposal of reactor compartments in trench 94 of the 218-E-12B Burial Ground, as requested in Appendix 4D below. Enforceable portions of the permit application are listed below: all subsections, figures, and tables included in these portions are also enforceable unless otherwise stated:"

Actions to be taken: Revise condition III.4X.B to read as stated above.

3. Condition III.4.A., Appendix 4D.

Requested Action: After "Request for Exemption from Lined Trench Requirements at 218-E-12B Burial Ground Trench 94" add "(Section 5.0)"

Comment Justification: The request for exemption from lined trench requirements for the disposal of reactor compartments in Trench 94 of the 218-E-12B Burial Ground is found in Section 5.0 of the permit documentation included as Appendix 4D, *Request for Exemption from lined trench requirements at 218-E-12B Burial Ground Trench 94*. All other information provided in this document supports this request, and is not intended for inclusion in the Permit.

Ecology response to comment on proposed condition III.4.A., Appendix 4D. Ecology agrees to add the appropriate reference relating to reactor compartments, however use Section 4.0 (not Section 5.0).

Actions to be taken: After "Request for Exemption from Lined Trench Requirements at 218-E-12B Burial Ground Trench 94" add "(Section 4.0)"

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[1] Actual Chapter number will be decided at inclusion of this unit in the Permit after second Public Involvement review.
[2] Actual attachment number will be decided at inclusion of this unit in the Permit after second Public Involvement review.

4. Condition III.4.B.e., Page 4-1, line 21 -27: Delete and replace with "Mixed waste disposed in containers may not contain free liquids or have greater than 10% void space. There are waste shipments containing condensed liquid vapor and greater than 10% void space which will require disposal. These waste shipments will meet a performance standard for packaging to prevent releases to the environment. Free liquids are further addressed in Appendix 3A, Section 1.2. If greater than 10% void space is present in any container, it must crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill."

Requested Action: Delete this condition and replace with "Mixed waste disposed in containers may not contain free liquids and the containers may not be less than 90 percent full. There are waste shipments of containers, which contain condensed liquid vapor and are less than percent full, which will require disposal. These waste shipments will meet a performance standard for packaging to prevent releases to the environment. Free liquids are further addressed in Appendix 3A, Section 1.2. If any container is less than 90 percent full, it must be crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill".

Comment Justification: The regulatory requirement as stated in 40 CFR 264.315 states "Unless they are very small, such as an ampule, containers must be either: (a) at least 90% full when placed in the landfill; or (b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill." The regulations do not use the term "void space".

Ecology response to comment on proposed Condition III.4.B.e: Ecology agrees to substitute "90% full' in place of "10% void space".

Actions to be taken: Delete this condition and replace it with "Mixed waste disposed in containers may not contain free liquids and the containers may not be less than 90 percent full. There are waste shipments of containers, which contain condensed liquid vapor and are less than (what?) percent full, which will require disposal. These waste shipments will meet a performance standard for packaging to prevent releases to the environment. Free liquids are further addressed in Appendix 3A, Section 1.2. If any container is less than 90 percent full, it must be crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill".

5. Condition III.4.B.h., Page 4-2, line 32: The word "Ecology" is added before the word "approved."

Requested Action: Delete this condition.

Comment Justification: The dangerous waste regulations do not give Ecology approval authority when a container needs to be moved somewhere other than a TSD unit to be opened.
Ecology response to comment on proposed Condition III.4.B.h: The Hanford site is permitted as one TSD facility, however there are many TSD units and many generators at Hanford, each with a unique set of criteria for the type of waste to be received and handled. If a container of dangerous waste (DW) is moved from a generator unit it must be sent to either an interim status or final permitted TSD unit. The dangerous waste regulations do not allow a dangerous waste container to be opened at an unpermitted location at Hanford (see Chapter 173-303-141 WAC). Ecology agrees to delete this condition, however to eliminate any confusion, the last paragraph of section 4.1.1, (page 4-2, line 30) will be re-written as follows:

If containerized mixed waste must be opened (i.e., for confirmation sampling, repackaging, etc.), the container typically would be removed to an onsite RCRA Interim Status or Permitted TSD before being opened. The container would be sealed before being returned to the LLBG.

Actions to be taken: Replace the last paragraph of section 4.1.1, (page 4-2, line 30) and substitute the language stated above.

6. Condition III.4.B.n. Page 4-4, line 4 - 8: Delete and replace with "Testing for free liquids shall be performed IAW Appendix 3A, Waste Analysis Plan, for mixed wastes accepted for storage and disposal in the LLBG."

Requested Action: Delete "IAW" and replace with "in accordance with"

Comment Justification: Unfamiliar abbreviations should be avoided.

Ecology response to comment on proposed Condition III.4.B.n: Ecology agrees that the acronym "IAW" will be replaced with "in accordance with".

Actions to be taken: Delete "IAW" and replace with "in accordance with"

7. Condition: III.4.B.p. Page 4-22, line 2: The word "When" is deleted and replaced with "The systems shall be."

Requested Action: Delete this condition.

Comment Justification: There is no regulatory requirement that requires the pumps be operated in automatic mode. Automatic mode may actually increase personnel requirements, requiring system surveillance that may not otherwise be required during back shifts and on

weekends/holidays. Increased operational efficiency can result from operating pumps manually, only when required, rather than in an automatic mode.

Ecology response to comment on proposed Condition III.4.B.p: Ecology agrees to delete this condition. Automatic pumping of the leachate collection systems need not be mandatory as long as the conditions set forth in section 4.5.6.1 of the permit application are followed. Section 4.5.6.1 allows both leachate collection systems to be "operated either manually or automatically". When operated automatically, liquid level sensors cycle the pumps on and off, in response to rising and falling leachate levels. At least once a week, the leakage rate through the top liner is calculated to demonstrate that the leakage rate is less than the 'action leakage rate' (Appendix 4C)". Section 4.5.6.1 also states the following: "Collected leachate from the secondary leachate collection system can be either pumped back to the primary leachate collection system or to the leachate collection tank."

Actions to be taken: Delete condition III.4.B.p.

8. **Condition: III.4.B.q. Page 4-22, line 11:** The sentence "If rain covers as described in Section 4.5.3.1.1 are used on lined trenches, then the primary leachate collection system is allowed to be placed in the manual operation mode during weekends and holidays provided that the secondary leachate collection system continues to be operated automatically and discharges to the primary leachate collection system."

Requested Action: Delete this condition.

Comment Justification: With Condition III.4.B.p deleted, this condition is unnecessary.

Ecology response to comment on proposed Condition III.4B.q: Ecology agrees to delete this condition as long as conditions set forth in section 4.5.6.1 of the permit are followed.

Actions to be taken: Delete condition III.4.B.q.

9. **Condition: III.4.B.r. Page 4-30, line 49:** Deleted "after 25-year storm event" and replaced with "within 7 days of significant runoff events and maintenance to repair any damage found within 60 days of discovery."

Requested Action: Delete "and maintenance to repair any damage found within 60 days of discovery" from the condition.

Comment Justification: There is no regulatory requirement for the 60-day repair requirement.

Ecology response to comment on proposed Condition III.4.B.r: Ecology does not agree with comment, the statement "within 7 days of significant runoff events and maintenance to repair any damage found within 60 days of discovery" will remain. Ecology publication #95-402, Dangerous Waste Permit Application Requirements (June 1996), section F-2C (Schedule for Remedial Action for Problems Revealed) states that "The schedule(s) and procedures: (c) Must specify actual timelines for taking corrective measures...". Refer to Chapter 173-303-320(3) WAC for additional inspection requirements.

Actions to be taken: None

10. Condition: III.4.B.u. Page 6-1, line 34: Delete the remainder of the sentence beginning with the words "as soon as practical" and replace with "within 24 hours, except for the Reactor Compartments."

Requested Action: Delete this condition.

Comment Justification: There is no regulatory requirement for the 24-hour requirement. By forcing the operation to cover waste within 24 hours, valuable landfill space will be wasted to backfill material. This increases the overall cost of disposing of mixed waste, without providing any significant benefit.

Ecology response to comment on proposed Condition III.4.B.u: Ecology agrees to delete this condition and substitute the following language: "in a timely manor (typically within 24 hours) to prevent intrusion, deterioration of containers, or dispersion of waste."

Actions to be taken: Delete this condition and substitute the following language: "in a timely manor (typically within 24 hours) to prevent intrusion, deterioration of containers, or dispersion of waste."

11. Condition: III.4.B.v. Page 6-2, line 17: Delete "on a schedule that helps" and replaced with "within 14 days or less, unless otherwise specified by Ecology, to."

Requested Action: Delete this condition and replace with "Abnormal conditions identified by inspections must be corrected on a schedule that protects workers, the public, and the environment."

Comment Justification: There is no regulatory requirement for the 14-day requirement. Changing the condition will make the paragraph more consistent with WAC 173-303-145 (3) on mitigating and controlling spills and discharges into the environment.

Ecology response to comment on proposed Condition III.4.B.v: Ecology agrees to replace this condition with the DOE suggested language as follows: "Abnormal conditions identified by inspections must be corrected on a schedule that protects workers, the public, and the environment."

Actions to be taken: Delete language in proposed condition III.4.B.v and replace it with the above stated language.

12. Condition: III.4.B.w. Page 6-2, line 19: Added "If subsidence is discovered within the LLBG, the subsidence shall be stabilized within 90 days and control measures established within 14 days to minimize precipitation and runoff from accelerating contaminant migration."

Requested Action: Delete this condition.

Comment Justification: There is no regulatory requirement for this condition. Subsidence should be dealt within a manner that protects human health and the environment.

Ecology response to comment on proposed Condition III.4.B.w: The condition will remain unchanged. Ecology is making this condition a requirement of the Permit. Subsidence has been well documented as a problem at several low-level burial grounds in the 200 areas at Hanford. DOE has not provided any rational for not being able to meet the 90 and 14-day requirements of this condition. Ecology believes that condition III.4.B.w follows the intent of Chapter 173-303-320 WAC and establishes reasonable maximum time lines that ensures human health and the environment will be protected.

Actions to be taken: None

13. Condition: III.4.B.aa. Page 6-3, line 37: Deleted "longer" and replaced with "within 30 days."

Requested Action: Delete this condition.

Comment Justification: There is no regulatory requirement for the 30-day requirement. Requirements such as this, and the documentation must accompany them, that contribute to the high cost of the Hanford cleanup.

Ecology response to comment on proposed Condition III.4.B.aa: The condition will remain unchanged. Ecology is making this condition a requirement of the permit. DOE has not provided any rational for not being able to meet the 30-day requirement of this condition.

Ecology believes that condition III.4.B.aa follows the intent of Chapter 173-303-320 WAC and establishes a reasonable maximum time line that ensures human health and the environment will be protected.

Actions to be taken: None.

14. Condition: III.4.B.bb. Page 6-3, line 44: After "supervisor" added "but no later than 60 days".

Requested Action: Delete this condition.

Comment Justification: There is no regulatory requirement for the 60-day requirement. Requirements such as this, and the documentation that must accompany them, contribute to the high cost of the Hanford cleanup.

Ecology response to comment on proposed Condition III.4.B.bb: Ecology agrees that this condition is not necessary since this covers situations that pose no threat to human health or environment.

Actions to be taken: Delete condition III.4.B.bb.

15. Condition: III.4.B.ll. Page 7-1, line 12-14: Delete and replace with "All revisions to the building emergency plan will be considered Class 1 modifications except modifications which change a dangerous waste spill or release response procedure or removes equipment from the emergency equipment list. In addition to the requirements set forth in appendix 7A, the LLBG operating organization shall provide a report to Ecology within 15 days of any incident which results in a release of mixed waste to the environment or injury/suspected chemical overexposure to any employee at the facility. The report shall review and evaluate the cause of the incident and a description of the corrective actions taken to prevent reoccurrence. This condition shall apply until such time that the Permit Contingency Plan is modified to further address and clarify the reporting requirements to Ecology."

Requested Action: Delete this condition.

Comment Justification: This permit condition deleted: "Therefore, revisions made to portions of the contingency plan documents that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to review or approval by Ecology.", and

incorporated four new sentences. The language as written in the Contingency Plan accurately describes the situation.

Deleting this sentence is not consistent with the other units in this modification (200 Area Liquid Waste Complex, Chapter 5; 242-A Evaporator, Chapter 6; and the 325 Hazardous Waste Treatment Units, Chapter 7.)

Ecology response to comment on proposed Condition III.4.B.ll. Ecology agrees that Class 1 Modifications may not be the appropriate mechanism for notifying Ecology of all revisions to the building emergency plan, however Ecology shall be notified of all revisions to the building emergency plan that Ecology has jurisdiction over. Ecology is working with DOE on Hanford Building Emergency Plan (BEP) issues to determine how to best notify Ecology of control changes.

Actions to be taken: Delete Condition III.4.B.ll.

16. Condition: III.4.B.qq. Page 11-3, line 30: The following text is inserted:

"Filled trenches shall be inspected, at minimum, every three months, and deficiencies corrected within 90 days of discovery.

For existing regulated units, which are completely filled, a closure plan shall be developed and integrated with surrounding SWMU corrective action plan. A corrective action plan shall also be developed for SWMU 218-W-4B. The compliance schedule for several identified units is shown below. The remaining units not identified below shall be reviewed during the 10 year Sitewide permit review to determine an appropriate compliance schedule.

Sept. 30, 1998: Submit a workplan to investigate releases to the environment from 218-W-4B, southern filled SWMU portion of 218-E-12B, southern filled portion of 218-E-10, and 218-W-3A.

Sept. 30, 1999: Implement an approved Ecology workplan for 218-W-4B, southern filled SWMU portion of 218-E-12B, southern filled portion of 218-E-10, and 218-W-3A.

Sept. 30, 2001: Complete implementation of the Ecology approved workplan.
Trench 31 and 34 shall have a closure plan meeting the requirements of WAC 173-303 submitted during the Sitewide permits 10-year review. Trench 94 shall not be required to develop a closure

plan at this time provided the Reactor Compartments are visually inspected and maintained. A closure plan requirement for Trench 94 will be reviewed at the 10 year review of the Permit."

Requested Action: Delete this condition and replace with "The permitees and Ecology shall conduct a study design workshop for the LLBG. The workshop will follow the interim final EPA document "Guidance for Planning for Data Collection in Support of Environmental Decision Making Using the Data Quality Objectives Process" (EPA QA/G-4, 1993). By mutual agreement of all parties the DQO process may be altered to accommodate unique characteristics of the LLBG. This process will start by March 2, 1998, and conclude by August 31, 1998.

The workshop shall be used to develop appropriate near and long-term actions to be taken under the Low Level Burial Grounds Closure Plan. The actions shall be cost effective and designed to minimize adverse environmental impacts from disposal of waste during the active life of the Burial Grounds and after closure. The plan and associated work schedule will be submitted to Ecology by September 30 and October 15, 1998, respectively. Ecology will issue a final decision on the work schedule by November 13, 1998. The plan and associated work schedule will be incorporated into the final permit by a Class I permit modification in the fourth quarter of fiscal year 1998."

Comment Justification: The following are concerns with this Permit Condition: 1) Some deficiencies that take longer than 90 days to correct, 2) The closure plan is an inappropriate place to discuss corrective actions, and 3) The proposed corrective action seems to be overly broad in that it would appear to apply to management activities that have only involved radioactive (non-mixed) waste.

Ecology response to comment on proposed Condition III.4.B.qq: The sentence "Filled trenches shall be inspected, at a minimum, every three months, and deficiencies corrected within 90 days of discovery." will remain. (Note the change from "at minimum" to "at a minimum") No rationale was provided justifying DOE concerns that some deficiencies may take longer than 90 days to correct. Ecology agrees to delete the remainder of the condition, however, the language developed from our recent meetings with DOE and their contractors' staff will be substituted as follows:

"The permitees and Ecology shall conduct a study design workshop for the LLBG. The workshop will follow the interim final EPA document "Guidance for Planning for Data Collection in Support of Environmental Decision-Making Using the Data Quality Objectives Process" (EPA QA/G-4, 1993). By mutual agreement of all parties the DQO process may be

altered to accommodate unique characteristics of the LLBG. This process will start by March 2, 1998, and conclude by August 31, 1998.

A plan shall be developed through the Workshop to determine near and long term impacts to the environment from disposal of waste in the Low Level Burial Grounds. The plan and associated work schedule will be submitted to Ecology by September 30 and October 15, 1998, respectively. Ecology will issue a final decision on the work schedule by November 13, 1998. The plan and associated work schedule will be incorporated into the final permit by a Class 1 permit modification in the fourth quarter of fiscal year 1998.

Actions to be taken: The portion of this condition that states "Filled trenches shall be inspected, at a minimum, every three months, and deficiencies corrected within 90 days of discovery." will remain. Delete the remainder of the condition and substitute the language as described above in the Ecology response to DOE comments.

17. Condition: III.4.B.tt. Page 11-17, line 19: An extension for closure of post-August 19, 1987, regulated mixed waste is granted provided compliance with the schedule of activities outlined in Section 11.3.

Requested Action: Delete this condition.

Comment Justification: This condition allows the requested extension provided a list of activities proposed in Condition III.4.B.qq are carried out. This list of activities needs to be negotiated and agreed to before acceptance.

Ecology response to comment on proposed Condition III.4.B.tt: Ecology agrees to delete this condition, however, language developed as a result of recent DOE/Ecology meetings will be substituted as follows:

> Page 11-17, line 19: An extension for closure of post – August 19, 1987, regulated mixed waste units is granted provided compliance with the workplan and schedule of activities developed as Part III.4.B.qq of this permit and provided that a closure strategy be developed for the LLBG by December 1999 that considers the following elements:
>
> Links to the Environmental Restoration Program.
> Links to the 200 Area Cleanup Strategy.

Links to relevant operable units remediation.
Links to the LLBG investigation/characterization resulting from the DQO process.
Results of workshops involving stakeholders.
Transuranic waste removal plans and activities.

Actions to be taken: Delete this condition and substitute the language stated above in the Ecology response to DOE comments.

18. Condition: III.4.B.jjj. App. 3A, page 1-5, line 30 - 52: Delete and replace with the following:

"**1.1.2 PROCESS FOR REDUCING THE PHYSICAL SCREENING FREQUENCY:**

After a generator's frequency has been adjusted due to poor performance or initial frequency established, their physical screening frequency can be reduced in accordance with the following:

1. The physical screening frequency will be stepped down in three steps based upon the ability of the generator to quickly implement their CAP or demonstrate their ability to appropriately manage waste (as applicable). At no time shall the physical screening frequency be reduced below the 5% for onsite generators or 10% for offsite generators.
   - STEP 1) Reduce frequency by 66% the first month.
   - STEP 2) Reduce frequency established in Step 1 by 50% or the minimum allowable whichever is greater.
   - STEP 3) Reduce frequency to the minimum allowable.
2. The reduction will be determined during the monthly evaluation process, however, the following minimum criteria must be met prior to reduction of the frequency:
   (a) 5 containers from the streams in question must pass verification, and
   (b) the TSD documents their evaluation of the CAP or new generator's waste management program has been implemented and is effective.
   (c) If the frequency was increased based upon conformance issues upon receipt of the waste, the CAP must be fully implemented prior to the customer returning to the minimum physical screening frequency. However, wastestreams from the same generator which did not have conformance issue upon receipt at the LLBG may be returned to the minimum verification frequency if it is determined by the LLBG operating organization that it is unlikely that the specific conformance issue will affect the generator's other wastestreams."

Requested Action: Delete the last sentence and replace with: "However, waste streams from the same generator which did not have a conformance issue upon receipt at the LLBG and the

waste streams that have been cleared during the monthly review may be returned to the minimum verification frequency if it is determined by the LLBG operating organization that it is unlikely that the conformance issue will affect the generator's other waste streams."

Comment Justification: This condition, as written, does not offer DOE-RL the flexibility needed to adjust verification frequencies based upon improved performance. The condition, as written, will require additional verification of waste streams, which no longer exhibit the same performance issues which originally caused the frequency adjustment. Modification of this condition will help ensure that DOE-RL does not perform needless verifications.

Ecology response to comment on proposed Condition III.4.B.jjj: The condition will remain (as agreed to during the previous DOE/Ecology workshop sessions). No additional flexibility is needed.

Actions to be taken: None.

19. Condition: III.4.B.c. Page 3-1, line 41-43: Delete and replace with "Free liquids as described in Appendix 3A, Section 1.2 will not be accepted at the Low-Level Burial Grounds."

Requested Action: Delete this condition.

Comment Justification: Provisions of Appendix 3A, Section 1.2, provide adequate protection of human health and the environment. Deleting the free liquids' provision of Appendix 3A, Section 1.2, contradicts the verbiage included in Condition III.B.e.

Ecology response to comment on proposed Condition III.4.B.c: Ecology assumes that the condition III.B.e as listed above is actually condition III.4.B.e. During the November 18, 1997 permit review meeting, Ecology and DOE agreed to correct an error in the original condition as follows: The word "not" following "Section 1.2 will..." is deleted. The corrected Condition III.4.B.c will read as follows: [Delete and replace with "Free liquids as described in Appendix 3A, Section 1.2 will be accepted at the Low-Level Burial Grounds."]

Actions to be taken: Replace Condition III.4.B.c with the corrected version as stated above.

Comments on the proposed conditions to the 325 Hazardous Waste Treatment Units

1. **Condition:** III.7.B.d. For all shipments of dangerous waste to or from this TSD unit, the Permittees shall comply with Conditions II.P. or II.Q. of this Permit regarding dangerous waste shipment manifesting and transportation, regardless of the volume of the shipment.

Requested Action: Delete this condition.

Comment Justification: The 325 HWTUs will be required to comply with II.P. and II.Q. requirements, as applicable, by inclusion into the Hanford Facility RCRA Permit. A special permit condition is not needed to assure compliance. The use of the special condition confuses the issue and may imply that all onsite shipments must be documented, even if excluded from coverage by existing conditions II.P. and II.Q.

Ecology response to comment on proposed Condition III.7.B.d: Throughout the 325 HWTUs permit application, no specific procedures are specified for the transfer of dangerous waste within the 325 building, or for transport of dangerous waste within the 300 Area to the 325 HWTUs. Statements included say that for protection purposes and good housekeeping practices, ALARA is practiced. PNNL already has Operating Procedures in place for transfer of dangerous waste in the 300 Area and for the 325 Building that have been reviewed and concurred by Ecology, and is actively using those procedures for transfers. Ecology believes that the packaging and transporting practices for hand carrying single walled waste containers is inappropriate and leaves room for human error. Therefore, a more stringent tightening of these procedures is more appropriate.

While Ecology does not concur with the aforementioned DOE comment justification in whole, it is accepted that the condition may be confusing as it is written.

Action to be taken: The condition will be re-written as follows:

> "For all shipments of dangerous waste to or from the 325 Hazardous Waste Treatment Units, the Permittees shall comply with the applicable information in Conditions II.Q.1.h. and II.Q.2. of the Permit. For clarification, all dangerous waste must be transported in accordance with the unit specific provisions as outlined in the PNNL Operating Procedure for the 325 Building, in effect at the date of the transfer. With exception to and in addition to the packaging and transporting operations, shall be as follows:
>
> - The acceptance of all dangerous waste received at the 325 TSD Units will be dependant upon their packaging. The practice of hand carrying single walled

waste containers will no longer be acceptable. Each waste container shall have secondary containment with absorbent materials packed around the contents.

2. **Condition:** III.7.B.j., Telephone number(s) for a point-of-contact at each of the three units of the HWTUs shall be provided in the Waste Analysis Plan (i.e., Unit Description) and provided to the Department within 30 days of the issuance of this Permit.

Requested Action: Delete this condition.

Comment Justification: This information is not required by the Dangerous Waste Regulations. Hanford Facility Permit requirements. or for other units in Modification C. Maintaining this information will require frequent revisions to the permit that increases cost of permitted operations. Contact points are identified elsewhere in the permit application, and other staff contacts can be provided informally.

Ecology response to comment on proposed Condition III.7.B.j: Ecology does not agree with this comment. During a permitting workshop held on August 13, 1997, Ecology, DOE, and PNNL mutually agreed that instead of maintaining a person's name in the Permit, the secretary's desk located directly inside the front doors of the 325 building would maintain, telephone number(s) of the current point(s) of contact for the TSD. The basis of the agreement was to minimize the costs associated with changes of personnel and maintaining the Permit to reflect such changes while not compromising protection of human health and the environment. Other units in the Modification C are not comparable to this unit due to the unique circumstances at this unit.

Action to be Taken: None

3. **Condition:** III.7.B.k., Process knowledge and analytical data that are used for waste characterization, LDR determination, and/or treatment shall be documented and place in the Operating Record.

Requested Action: Add "activities at this TSD unit" after the word "treatment".

Comment Justification: Provide clarification for generator records maintained in the unit-specific portion of the facility operating record for waste designated under LDR requirements at the TSD unit.

Ecology response to comment on proposed Condition III.7.B.k.: Ecology agrees the change provides the needed clarification.

Action to be taken: Proposed text changes to the condition will be made.

4. **Condition:** III.7B.1.. Shipments of waste shall not be accepted from any onsite generator without LDR information, if applicable, accompanying each shipment. The TSD unit staff shall obtain, from the onsite generator, the information necessary to determine the following: waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, treatment standard, identification of underlying hazardous constituents for certain characteristic waste, and whether the waste meets the specified treatment standard(s). A member of the TSD unit staff may sign the LDR certification as a representative of the generator.

Requested Action: Delete the second sentence: "The TSD unit staff shall obtain, from the onsite generator, the information necessary to determine the following: waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, treatment standard, identification of underlying hazardous constituents for certain characteristic waste, and whether the waste meets the specified treatment standard(s)." Replace with: "The TSD unit staff shall obtain, from the on-site generator, the information necessary to comply with WAC 173-303-380(1)(k) and -380(1)(o)."

Ecology response to comment on proposed Condition III.7B.1.,: Perhaps a misunderstanding of our intent has occurred during the reading of this condition. We are not asking that DOE provide the "treatment standard" as it was eliminated during the third-third final rule (55 FR 22668). All that Ecology is requesting is the information necessary to determine the treatment standard.

Action to be taken: The words "treatment standard" have been deleted and this condition has been re-written to read as follows:

> "Shipments of waste shall not be accepted from any onsite generator without LDR information, if applicable, accompanying each shipment. The TSD unit staff shall obtain, from the onsite generator, the information necessary to determine the waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, and identification of underlying hazardous constituents for certain characteristic waste. A member of the TSD unit staff may sign the LDR certification as a representative of the generator."

Comments on the proposed modifications to 303-K Storage Facility Closure Plan (Part V, Chapter 14):

1. **Condition: V.14.B.g.2.** Section 7.4 Support for Ecology during Sampling

Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected, if requested, for Ecology. If split samples for Ecology are collected as part of this sampling effort, then the...") and replace with the following: "Split samples of concrete and soil will be collected for Ecology from each sampling location. The..."

Requested Action: Delete this condition.

Comment Justification: As written, permit condition V.14.B.g.2 makes the collection of split samples for Ecology to be an enforceable permit condition. The permitees would be responsible for an Ecology action. This is not an appropriate permit condition. If Ecology decides not to collect split samples or is unavailable to provide the required sample containers, chain of custody, etc., then not collecting split samples would be a permit violation. The purpose of this section in the sampling and analysis plan is to inform the personnel collecting samples that they may be collecting split samples if requested by Ecology. This sampling and analysis plan text does not place any limitation or restrictions on Ecology.

Ecology response to comment on proposed Condition Condition: V.14.B.g.2. :
Ecology intends for collection of split samples to be an enforceable permit condition and intends for this condition to place limitations or restrictions on the Permittees, i.e., that Ecology must receive a split sample from each sampling location for the verification samples to be acceptable for this closure. This condition ensures that the Permittees cannot deny Ecology these split samples even if Ecology is denied access to the 303-K Storage Unit for any reason, including lack of sufficient notice of the sampling event or denial of access according to the TPA Article XXXVII.

Due to a number of considerations, especially influenced by the likely occurrence of radioactive contamination in samples from the 303-K Storage Unit, Ecology would not be able to perform sampling, prepare samples for shipment, and submit those samples to a common carrier independent of the U.S. Department of Energy and it contractors and subcontractors. Therefore, the taking of split samples is not an Ecology action, but is an action of the Permittees. The TPA Action Plan, Section 4.0 Agreement Management, page 4-1, states: "Subject to the limitations set forth in Article XXXVII (Access) of the Agreement and, in addition to other authorities and responsibilities, the Ecology and EPA project managers, or their designated representative(s), shall have the authority to: (1) take samples, request split samples of the DOE samples, and

ensure that work is performed properly...(2) observe all activities performed pursuant to the Agreement..."

Finally, a sampling and analysis plan is intended to define the requirements for collection and subsequent analysis of samples for the closure and so that the Permittees and their contractors can do adequate planning, including planning for schedule and personnel resources. Ecology informed the Permittees during the Data Quality Objectives process meetings approximately one year ago of the Department's intention to obtain split samples from each sample location due to the omission of parameters from the analyte list presented by the Permittees. Ecology recognizes a need to obtain analytical data for parameters at the 303-K Storage Unit, which are not included in this sampling and analysis plan, but are subject to evaluation under the numeric cleanup levels determined using the residential exposure assumptions according to the Model Toxics Control Act (codified in WAC 173-340) as incorporated into WAC 173-303 and as occur in the general closure provisions of this Permit. In addition, Ecology routinely obtains analytical data from an independent laboratory as a check on precision and accuracy of the analytical results, which are provided by the Permittees.

Action to be Taken: None

2. Condition: V.14.B.h. If any analytical result for any sample specified in the Sampling and Analysis Plan exceeds the MTCA Method B cleanup level, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit.

Requested Action: Delete this condition.

Comment Justification: Condition V.14.B.h. eliminates the use of soil background in reaching closure at the 303-K Storage Facility. Eliminating the use of soil background contradicts the strategy outlined in Section 6.0 of the 303-K Storage Facility Closure Plan. The strategy in Section 6.0 was accepted as an enforceable section under Condition V.14.A. and has been used in all TSD closure to date. The use of soil background is also an allowable method under Condition II.K.

Condition V.14.B.h. contradicts the requirements of condition V.14.B.d. that requires the permittees to request Ecology's approval of alternative action levels (i.e., cleanup performance standards), that or must identify interim measure to address the concern. Condition V.14.B.h requires that if the MTCA Method B cleanup levels are exceeded, then corrective action shall be pursued.

Condition V.14.B.h states that corrective action will be pursued if the MTCA Method B cleanup

levels are exceeded. The sampling and analysis plan invoked in Condition V.14.B.g identifies that the Hanford Sitewide background levels will be used for two of the constituents of concern (arsenic and beryllium). Background levels for these constituents of concern were chosen specifically because the naturally occurring concentrations are higher than the MTCA Method B cleanup levels.

Ecology response to DOE comment on Condition V.14.B.h.: Although Ecology does not agree with the comment as stated, the condition will be modified for clarification and to allow the use of the Hanford Sitewide Background values for arsenic and beryllium. A field investigation to identify potential contaminants and the lateral and vertical extent of those potential contaminants has not been performed for this TSD unit. The Department believes that the Sampling and Analysis Plan submitted by the Permittees does not fulfill the requirement of WAC 173-303(2), unless amended by the permit condition above. Therefore, the intent of this condition is two-fold:

(1) To require investigation of the extent of contamination, including the vadose zone, if near surface contamination above the MTCA Method B contact/ingestion levels exists for dangerous waste, hazardous constituents, residues, or their decomposition products. Any vadose zone data would be evaluated against the MTCA Method B numeric values for groundwater protection which were not included in the Closure Plan or Sampling and Analysis Plan.

(2) To identify the revised MTCA Tables [*in* Model Toxics Control Act Cleanup Levels and Risk Calculations (CLARC II) Update; WDOE Publication #94-145; February 1996] as the appropriate source of parameters and numeric values which were omitted from the Sampling and Analysis Plan. These parameters include analytes of dangerous waste, hazardous constituents, residues, and their decomposition products. Although Data Quality Objectives meetings to discuss the sampling and analysis requirements for this closure were held with the Permittees prior to publication of these revised tables, the Department asserts that the parameters and numeric values apply to closure activities which occur subsequent to the publication date.

Action to be taken: The condition will be reworded as follows: V.14.B.h. If any analytical result, **except for arsenic and beryllium,** for any sample **location** specified in the Sampling and Analysis Plan exceeds the MTCA Method B cleanup level, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit. **If arsenic or beryllium exceed the established Hanford Sitewide Background values, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit.**